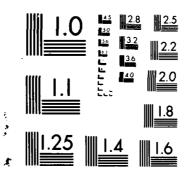
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CONTRACTOR DESCRIPTION SERVICE STATES

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



NCEL Contract Report CR 86.012
August 1986
An Investigation Conducted
By SYSTECH Corporation
Sponsored By Naval Facilities
Engineering Command

AD-A173 981

FINAL REPORT: RDF CO-FIRING COST/BENEFIT ANALYSIS USING THE NCEL RDF COST MODEL VOLUME II, APPENDIXES

ABSTRACT The object of this effort was to determine the cost effectiveness of co-firing RDF in existing Navy boilers. The cost-benefit analysis was performed using the NCEL RDF Cost Model and site specific boiler and cost data acquired from four naval activities that were determined to have the highest probability of successful co-firing. The cost effectiveness was measured by the savings to investment ratio (SIR) and computed over a range of cost and operating conditions to determine optimum RDF co-firing scenarios for each facility. Based on present laid-down coal costs and solid waste disposal charges, no set of operating conditions could be identified wherein the use of either co-fired RDF-3 or RDF-5 could be economically justified. Volume I presents the report; Volume II contains appendixes, and Volume III is the terminal manual of RDF cost model.

NAVAL CIVIL ENGINEERING LABORATORY FORT HUENEME CALIFORNIA 93043

Approved for public release, distribution is unlimited

Symbol

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*1 in = 2.54 (exactly) For other exact conversions and more detailed tables, see NBS Mec. Publ. 286. Units of Weights and Messures, Price \$2.25, SD Catalog No. C13.10.286.

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Unclassified
SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

REPORT DOCUMENTATION PA	READ INSTRUCTIONS BEFORE COMPLETING FORM				
CR 86.012	GOVT ACCESSION NO.	3 RECIPIENT'S CATALOG NUMBER			
Final Report: RDF Co-Firing (Analysis Using the NCEL RDF Co Volume II, Appendixes	Cost/Benefit ost Model -	Sep 1985 - Aug 1986			
Helen Belencan Gary Smith		N00123-83-D-0149			
SYSTECH Corporation 245 North Valley Road Xenia, OH 45385		WU RO371-013-431C			
Naval Civil Engineering Labora Port Hueneme, CA 93043-5003	atory	August 1986 NUMBER OF PASES 244			
Naval Facilities Engineering (200 Stovall Street		Unclassified			
Alexandria, VA 22332-2300		SCHEOULE			
Approved for public release; distribution is unlimited. 17. DISTRIBUTION STATEMENT for the abstract entered in Block 20. (1 different from Report)					
IN SUPPLEMENTARY NOTES					
refuse derived fuel, RDF, co-fired waste fuels, refuse fired boilers, cost/benefit analysis, RDF Cost Model					
The object of this effort was of co-firing RDF in existing N analysis was performed using t specific boiler and cost data that were determined to have t ful co-firing. The cost effect	to determing avy boilers he NCEL RDF acquired fro he highest p	. The cost-benefit Cost Model and site om four naval activities probability of success-			

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savings to investment ratio (SIR) and computed over a range of cost and operating conditions to determine the optimum RDF co-firing scenarios for each facility. Based on present laiddown coal costs and solid waste disposal charges, no set of operating conditions could be identified wherein the use of either co-fired RDF-3 or RDF-5 could be economically justified. Volume I presents the report; Volume II contains appendixes, and Volume III is the terminal manual of RDF cost model.

Unclassified

VOLUME II

TABLE OF CONTENTS

Appendices

- Facility Input Data Questionnaires Α
- Telephone Logs В
- C Modifications to the NCEL RDF Cost Model
- D
- NCEL RDF Cost Model: Multiplan® Formula Listings Complete Operational and Economic Data Outputs for the Sensitivity and Best Case Analysis

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APPENDIX A FACILITY INPUT DATA QUESTIONNAIRES



DEPARTMENT OF THE NAVY

NAVAL CIVIL ENGINEERING LABORATORY
PORT HUENEME, CA 93043

3900 Ser L71/RMR RDF 24 October 1985

From: Commanding Officer, Naval Civil Engineering Laboratory,

Port Hueneme, CA 93043

To: Commanding Officer, Naval Amphibious Base Little Creek,

PWD (Code N46), Norfolk, VA

Subj: INPUT DATA REQUIRED FOR COST/BENEFIT MODELLING OF

RDF FUELS FOR COFIRING WITH COAL IN STOKER FURNACES

Ref: (a) NAVFAC Energy Project Work Unit Z0371-01-421D/E

(b) Phonecon from NCEL R. M. Roberts to your office 24

OCT 85

Encl: (1) RDF/Coal Cofired Boiler Model Input Data

Questionnaire

1. Enclosure (1) is transmitted for your completion. It is requested that the subject data be provided for use in reference (a) as explained by reference (b).

2. It is expected that there may be some difficulty with some of the model input information requested. Determination of the limits of information availability is an important consideration in the configuring of the RDF/Coal Cofired Boiler Model. We will therefore be as interested in examining what data you can supply us with as we will be in finding out what data you cannot. To ensure that our questions are clear and properly structured, we urge you to solicit as often as necessary the assistance of the contractor who is responsible for the final design of the model. He may be reached as follows:

Mr. Gary E. Smith
Systech Corporation
245 No. Valley Rd.
Xenia, OH 45385
(513) 372-8077 or (513) 429-2533

3. When you have completed the questionnaire, please mail it to the contractor. If there are any administrative issues that need attention, please contact me on A/V 360-4193, FTS 799-4193, or comm'l (805) 982-4193. We will appreciate having your questionnaire by 15 November 1985.

Richard M. Roberts
Chemical Engineer

Code L71

TED DECE

ENCLOSURE (1)

NAVAL BASE

NAVAL BASE

Daval Amphibious Base L: Hle Creek

BLD # 757

BOILER # 107

PRIMARY CONTACT PERSON

Mr. Robert S. Acra, Jr.

TITLE

Boiler Plant Operator Foreman

PHONE # 204-464-8675

DESIGN FUEL INFORMATION

1/2 MBTU/HR DESIGN TOTAL FUEL VALUE TO BOILER AT HCR (MAXIMUM CONTINUOUS RATING) (BTU/HR) Bituminous Coal DESIGN FUEL TYPE 13400 TYP 12500 MIN. AUG HIGHER HEATING VALUE OF DESIGN FUEL (BTU/LB) 9.0% FRACTIONAL ASH CONTENT OF DESIGN FUEL, AS-RECIEVED 5.0% FRACTIONAL MOISTURE CONTENT OF DESIGN FUEL 36.0% HYDROGEN MASS FRACTION OF AS-RECIEVED DESIGN FUEL 12,500 BTU per 16. SPECIFIC HEAT OF DESIGN FUEL ~BTO TYP (NOT DISIGN) DESIGN CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR DESIGN RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR. Ambient DESIGN TEMPERATURE OF DESIGN FUEL AT BOILER BOUNDARY (DEG F) 25% DESIGN EXCESS AIR REQUIRED FOR DESIGN FUEL AT MCR (X)

CURRENT FUEL INFORMATION	•
CURRENT FUEL TYPE	•
CURRENT FUEL VALUE TO BOILER AT MCR (BTU/HR)	Bituminous Coal
(FOR THE FOLLOWING, SUPPLY FUEL ANALYSIS REPORT IF AVAILABLE)	
HIGHER HEATING VALUE OF CURRENT FUEL (BTU/LB)	14,319 BTU per 16.
FRACTIONAL ASH CONTENT OF CURRENT FUEL, AS-RECIEVED	<u>7.53%</u>
FRACTIONAL MOISTURE CONTENT OF CURRENT FUEL	4.65%
HYDROGEN WASS FRACTION OF AS-RECD CURRENT FUEL.	32.04%
SULFUR MASS FRACTION OF AS-RECO CURRENT FUEL	0.5% TYP 1.5% SPEC
SPECIFIC HEAT OF CURRENT FUEL	13, 653 BTUper 16
CURRENT CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	28%
CURRENT RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	2 4 %

~ 25% 90 -7 40 KLEHE ~25%

ROTLER	AND	EDUIPMENT	INFORMATION
00,000			

TEMPERATURE OF CURRENT FUEL AT BOILER BOUNDARY (DEG F)

MAXIMUM BOILER TURNDOWN ACHIEVABLE WITH CURRENT FUEL (X)

EXCESS AIR REDUTRED FOR CURRENT FUEL AT NEAR MAXIMUM TURNDOWN (X)

EXCESS AIR REQUIRED FOR CURRENT FUEL AT MCR (\$)

THE FOLLOWING. GIVE THE MANUFACTURE	. EQUIPMENT DESCRIP	PTION AND RATED	CAPACITIES OR	THROUGHPUTS
-------------------------------------	---------------------	-----------------	---------------	-------------

FUEL FEED SYSTEM	DOTROIT ROTOGRATE STOKERS, Type RG-3, 300. 27" PAULS ON CA. A
SRATE SYSTEM	DETROIT ROTO PRATE
ASH HANDLING SYSTEM	NATIONAL CONVAMORS B VACUUM SysTem with Storage Si'co
MULTICLONES OR CYCLONES	NONE
SCRUBBERS	NINE
ESP	NONE
846-10USE (CRIFFIN ENVIRONMENTAL Q. INC RA- 90 REYERS & AIR CLUSTER

IS THE BOILER EQUIPPED WITH :

FLY ASH TEMP AT BOILER BOUNDARY (DEG F)

関われる SEP というない (Marie Marie Control of Marie Control of Marie Control of Co

AN 1D FAN	<u>Yes</u>	
SOOTBLONERS FOR THE CONVECTIVE	yes	
AN ECONOMIZER	Yes	
SOOTBLOMERS FOR THE ECONOMIZER	Yes	
WHAT TYPE OF ECONOMIZER TUBES?	Extended Gill R	ling
OPERATIONS INFORMATION		
AVAILABILITY OF EXISTING BOILER FIR	RED WITH CURRENT FUEL (#)	~ 90%. - 2 EOILERS MAX REQ'T + 1 STAIDEY
DOES ADEQUATE BACKUP CAPABILITY EX	ist Yes.	- 2 EOLLEVS MAX REQT + 1 STAIDEY
DOES BOILER HAVE A HISTURY OF SLASE	61N6	16
FOR THE FOLLOWING, SUPPLY TEST REPO	ORTS ON PARTICULATE ENISSIONS COMPL	IANCE OR BOILER EFFICIENCY TESTS IF AVAILABLE
APPLICABLE PARTICULATE ENISSIONS ST	TANDARD	.23/6/MBtu
ACTUAL PARTICULATE EMISSIONS		13.91 16s/hr ork/3694/65/17
STACK TEMPERATURE (DEG F)		450 °F
STACK VOLUMETRIC FLOW RATE (ACFM)		42893 ACFM
AIR TEMP AT FD OR AIR-HEATING INLET	r (DES F)	80-100°F
PREHEAT COMBUSTION AIR TEMP (DEG F)		370°F
FUEL TEMP AT BOILER BOUNDRY (DEG F)		~ 60°F
ROTTON OSH TEND AT ROTLER ROLNDARY	(DER E)	•

2

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ECONOMIC INFOR	MATION			
BASIC UNBURDEN	ED OPERATOR WAGERATE (\$/HR	R)		
BURDENING ON B	ASIC WAGE RATE, A MULTIPLI	IER	***************************************	·
COST OF CONVEN	TIONAL FUEL (\$/TON)		38 + 2/ shipping	
COST OF ELECTR	ICITY (\$/KWH)		0,021	
DISPOSAL COST	FOR ASH (\$/TON) 254/	19. ASH - TON	\$25	
STEAM DEMAND B	Y SHIFT BY SEASON BY DAY,	AVERAGE HOURLY (BTU/HR)		
SUPER	SHIFT 1	SHIFT 2	SHIFT 3	
MON-FRI			40.00	O MET
SAT	-	*****		him
SUN			/	,
WINTER			/	,
MON-FRI			***************************************	
SAT		*****	/20,0	555
SUN		***********	****	
SPRING AND FALL	L			
MON-FRI				
SAT				
SUN		**************************************		
DISPOSAL COST F	FOR MUNICIPAL SOLID WASTE	OR BASE WASTE (\$/TON)		
PROJECTED FUTUR	E DISPOSAL COST FOR MUNIC	CIPAL SOLID WASTE OR BASE WASTE		
PROJECTED LIFE	OF LOCAL LANDFILL(S)		***************************************	
ANNUAL GENERATI	ON RATE OF BASE WASTES (T	ON/YR)		·
NAME AND PHONE	NUMBER OF CONTACT PERSON	IN CHARGE OF:		
NAVAL WASTE D	DISPOSAL ACTIVITIES	NOVE	PHONE (·
LOCAL COMMUNI	TY OR COUNTY SOLID WASTE	AUTHORITY NAME	PHONE (

OPNAV 5216/158 (Rev. 7-78) A W/ SN 0107 LF-052 169 1	CLASSIFICATION (UNCLASSIFIED when detached from enclosures, unless otherwise indicated)		
ROM (Show telephone number in addition to address) Commander, Puget Sound Naval	DATE		
Bremerton, Washington 98314	10 Dec 1985 SERIAL OR FILE NO.		
MCON P-500, Steam Plant	440.9:CKD:ca		
10	REFERENCE		
Systech Corporation 245 No. Valley Rd.		ENCLOSURE	
Xenia, OH 45385 ATTN: Mr. Gary E. Smith		RDF/Coal Cofired Boiler Model Input	
ATTI. daily E. Siirtii		Data Questionaire	
/!A	ENDORSEMENT ON		
XX FORWARDED RETURNED FOLL	LOW UP, OR REQUEST SUBM	TT CERTIFY MAIL FILE	
GENERAL ADMINISTRATION	CONTRACT ADMINISTRATION	PERSONNEL	
FOR APPROPRIATE ACTION	NAME & LOCATION OF SUPPLIER	REPORTED TO THIS COMMAND	
UNDER YOUR COGNIZANCE	OF SUBJECT ITEMS		
INFORMATION	SUBCONTRACT NO OF SUBJECT ITEM	DETACHED FROM THIS COMMAND	
APPROVAL RECOMMENDED YES NO	APPROPRIATION SYMBOL, SUBHEAD AND CHARGEABLE ACTIVITY	DETACHED FROM THIS COMMAND	
APPROVED DISAPPROVED	SHIPPING AT GOVERNMENT EXPENSE	071150	
		OTHER	
COMMENT AND/OR CONCURRENCE	A CERTIFICATE, VICE BILL OF LADING		
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SIGN RECEIPT & RETURN	CHANGE NOTICE TO SUPPLIER		
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DEPARTMENT OF THE NAVY

NAVAL CIVIL ENGINEERING LABORATORY PORT HUENEME, CA 93043

3900 Ser L71/RMR RDF 24 October 1985

From: Commanding Officer, Naval Civil Engineering Laboratory,

Port Hueneme, CA 93043

To: Commanding Officer, Puget Sound Naval Shipyard, PWD

(Code 53.1), Bremerton, WA

Subj: INPUT DATA REQUIRED FOR COST/BENEFIT MODELLING OF

RDF FUELS FOR COFIRING WITH COAL IN STOKER FURNACES

Ref: (a) NAVFAC Energy Project Work Unit Z0371-01-421D/E

(b) Phonecon from NCEL R. M. Roberts to your office 24

OCT 85

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Mr. Gary E. Smith Systech Corporation 245 No. Valley Rd. Xenia, OH 45385 (513) 372-8077 or (513) 429-2533

3. When you have completed the questionnaire, please mail it to the contractor. If there are any administrative issues that need attention, please contact me on A/V 360-4193, FTS 799-4193, or comm'l (805) 982-4193. We will appreciate having your questionnaire by 15 November 1985.

Richard M. Roberts
Chemical Engineer
Code L71

ENCLOSURE (1)

NAVAL BASE	PUGET SOUND NAVAL SHIPYARD
BLD #	900 .
BOILER #	NO 1, 2, 3
PRIMARY CONTACT PERSON	CURT DUEVER
TITLE	Project Engineer
PHONE #	206-476-3879

DESIGN FUEL INFORMATION

DESISH TOTAL FUEL VALUE TO BOILER AT MCR (MAXIMUM CONTINUOUS RATING) (BTU/HR)	172.84 x 106 BTU/HR (Per Boiler
	172.84 × 10 BTU/HR (Ar. Boiler (Per Ealer) Coal or Grade #2 orl
DESIGN FUEL TYPE	COAL OF Grade #2016
HIGHER HEATING VALUE OF DESIGN FUEL (BTU/LB)	10290 BTU/LB
FRACTIONAL ASH CONTENT OF DESIGN FUEL, AS-RECIEVED	9.13%
FRACTIONAL MOISTURE CONTENT OF DESIGN FUEL	15.48%
HYDROGEN MASS FRACTION OF AS-RECIEVED DESIGN FUEL	4.05 %
SPECIFIC HEAT OF DESIGN FUEL	10290 BTU/LB
DESIGN CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	4.05%
DESIGN RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	. 41%
DESIGN TEMPERATURE OF DESIGN FUEL AT BOILER BOUNDARY (DEG F)	80°f
DESIGN EXCESS AIR REQUIRED FOR DESIGN FUEL AT MCR (X)	30%

ESP

BAGHOUSE

996E 2	NOTE: This steam Plant Cu	rrently under construction
CURRENT FUEL INFORMATION	WILL go on line oc	r 1988
CURRENT FUEL TYPE	·	
CURRENT FUEL VALUE TO BOT	ILER AT MCR (BTU/HR)	172.84×10 BTU/HR
(FOR THE FOLLOWING, SUPPL	LY FUEL ANALYSIS REPORT IF RVAILABLE)	
HIGHER HEATING VALUE OF C	CURRENT FUEL (BTU/LB)	9200-12200 BTY/Lb range
FRACTIONAL ASH CONTENT OF	F CURRENT FUEL, AS-RECIEVED	3-11% range
FRACTIONAL MOISTURE CONTE	ENT OF CURRENT FUEL	5-23% vange
HYDROGEN MASS FRACTION OF	f as-recd current fuel	3.8 - 5.2% range
SULFUR MASS FRACTION OF A	AS-RECD CURRENT FUEL	* 0.30 - 1.67 % range
SPECIFIC HEAT OF CURRENT	FUEL	9200-12200 BTU/Lb rawge
CURRENT CARBON LOSSES AS	PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	4.05%
CURRENT RADIATION LOSSES	AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT NCR	. 41 %
TEMPERATURE OF CURRENT FL	LIEL AT BOILER BOUNDARY (DEG F)	30-100 f range
EXCESS AIR REQUIRED FOR C	CURRENT FUEL AT MCR (\$)	25-50% range
MAXIMUM BOILER TURNDOWN A	ACHIEVABLE WITH CURRENT FUEL (%)	COGL 42% - COOL/OIL 18/0
EXCESS AIR REQUIRED FOR C	CURRENT FUEL AT NEAR MAXIMUM TURNDOWN (%)	50% COAL
		10% 016
BOILER AND EQUIPMENT INFO	DRMATION	
FOR THE FOLLOWING, GIVE T	THE MANUFACTURER, EQUIPMENT DESCRIPTION AND RATED CAPACIT.	IES OR THROUGHPUTS
FUEL FEED SYSTEM	Four Ricey vari-Flex 15" Feeders	
GRATE SYSTEM	RILEY Travelying grate spreader	STOKER 16 wide X19 cong 20,400 Lb lh.
ASH HANDLING SYSTEM	Hydro-Ash vacuum PNeumatic	
MULTICLONES OR CYCLONES	N/A	
SCRUBBERS	ANHYdro Dry scrubber 85% suc	Fer dioxide removal 173,888 6/hi

* Limited to 1% by Permit

N/H

GEESI, Reverse AIV 190,317 Lb/hr

IS THE BOILER EQUIPPED WITH:

AN ID FAN

SOUTBLONERS FOR THE CONVECTIVE

YES ZEA G9B DIAMOND ROTORY

SOUTBLONERS FOR THE ECONOMIZER

YES

SOUTBLONERS FOR THE ECONOMIZER

YES 3EG G9B DIAMOND ROTORY

WHAT TYPE OF ECONOMIZER TUBES? Rare Steel Tube - RICEY

OPERATIONS INFORMATION

AVAILABILITY OF EXISTING BOILER FIRED WITH CURRENT FUEL (\$)	N/A	
DOES ADEQUATE BACKUP CAPABILITY EXIST	Yes les Reserve UNIT	
DOES BOILER HAVE A HISTURY OF SLAGGING	N/A	
FOR THE FOLLOWING, SUPPLY TEST REPORTS ON PARTICULATE EXISSIONS COMPLIAN	CE OR BOILER EFFICIENCY TESTS IF AVAILABLE	
APPLICABLE PARTICULATE ENISSIONS STANDARD	EPA MAY 1983 PSAPCA SEPT 1	984
ACTUAL PARTICULATE EMISSIONS	<u> </u>	
STACK TEMPERATURE (DEG F)	150° f	
STACK VOLUMETRIC FLOW RATE (ACFIN)	102,200 ACFM	
AIR TEMP AT FD OR AIR-HEATING INLET (DEG F)	70°-100' f Rrange	
PREHEAT COMBUSTION AIR TEMP (DEG F)	N/H	
FUEL TEMP AT BOILER BOUNDRY (DEG F)	80°f	
BOTTOM ASH TEMP AT BOILER BOUNDARY (DEG F)	300°-600° f	
FLY ASH TEMP AT BOILER BOUNDARY (DEG F)	340° f	

* PSAPCA - Puget Sound AIR POllution Control Agency

ECONOMIC INFORMATION

200-10-115			
BASIC UNBURDE	ENED OPERATOR WAGERATE (\$/H	R)	\$ 13.68
BURDENING ON	BASIC WAGE RATE, A MULTIPL	IER	1,305
COST OF CONVE	ENTIONAL FUEL (\$/TON)		\$ 78/ TON
COST OF ELECT	TRICITY (\$/KWH)		\$0.0227 KWH
DISPOSAL COST	FOR ASH (\$/TON)		5 16/ TOW
STEAN DEMAND	BY SHIFT BY SEASON BY DAY,	AVERAGE HOURLY (BTU/HR)	
SUPER	SHIFT 1	SHIFT 2	SHIFT 3
MON-FRI	50,000	45,000	45,000
SAT	40,000	40,000	40,000
SUN	40,000	40,000	40,000
WINTER			,
MON-FRI	150,000	140,000	135,000
SAT	130,000	130,000	130,000
SUN	130,000	130,000	130,000
SPRING AND FA	щ		
MON-FRI	100,000	92,500	90,000
SAT	85,000	85,000	85,000
SUN	85,000	85,000	85,000
DISPOSAL COST	FOR MUNICIPAL SOLID WASTE	DR BASE WASTE (\$/TON)	\$ 16/TON
PROJECTED FUTU	FRE DISPOSAL COST FOR MUNIC	IPAL SOLID WASTE OR BASE WASTE	\$ 25-30 TON 1987
PROJECTED LIFE	OF LOCAL LANDFILL(S)		1996
annual Generat	ION RATE OF BASE WASTES (TO	DN/YR)	42,000 TON/YR
NAME AND PHONE	NUMBER OF CONTACT PERSON 1	IN CHARGE OF:	
NAVAL WASTE	DISPOSAL ACTIVITIES	HOME 51M WIL	11/2450N PHONE 1 206-476-

From: Brian Pedersen, Naval Submarine Base, Bangor

To: Gary E. Smith, Systech Corporation

Subj: INPUT DATA FOR COST/BENEFIT OF CO FIRING WITH COAL IN STOKER FURNACES.

Ref: (a) Naval Civil Engineering Laboratory letter Ser L71/RMRRDF dated 24 October 1985

- 1. The accompanying information is provided as requested by reference (a).
- 2. Further questions may be addressed to the undersigned.

BRIAN PEDERSEN

C/O Naval Submarine Base Bangor

Bremerton, WA 98315



THE PROPERTY WAS ASSESSED ASSESSED ASSESSED.

DEPARTMENT OF THE NAVY

NAVAL CIVIL ENGINEERING LABORATORY PORT HUENEME, CA 93043

IN REPLY REFER TO

3900 Ser L71/RMR RDF 24 October 1985

From: Commanding Officer, Naval Civil Engineering Laboratory,

Port Hueneme, CA 93043

To: Commanding Officer, Naval Submarine Base, Bangor

PWD (Code 821), Bremerton, WA

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Ref: (a) NAVFAC Energy Project Work Unit Z0371-01-421D/E

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Richard M. Roberts Chemical Engineer

Code L71

ENCLOSURE (1)

NAVAL BASE	Subase BAngor	
BLD •	2900	
BOILER #		
PRIMARY CONTACT PERSON	Richard Tackson	
TITLE	Supervisor	
PHONE #	206-396-6801	

DESIGN FUEL INFORMATION

DESIGN TOTAL FUEL VALUE TO BOILER AT MCR (MAXIMUM CONTINUOUS RATING) (BTU/HR)	Subbitumipous or
DESIGN FLIEL TYPE	bituminous coal
HISHER HEATING VALUE OF DESIGN FUEL (BTU/LB)	9,400 to 13000 BTU
FRACTIONAL ASH CONTENT OF DESIGN FUEL, AS-RECIEVED	690 to 890 min
FRACTIONAL MOISTURE CONTENT OF DESIGN FUEL	10%
HYDROGEN WASS FRACTION OF AS-RECIEVED DESIGN FUEL	
SPECIFIC HEAT OF DESIGN FUEL	***************************************
DESIGN CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	
DESIGN RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	
DESIGN TEMPERATURE OF DESIGN FUEL AT BOILER BOUNDARY (DEG F)	
DESIGN EXCESS AIR REQUIRED FOR DESIGN FUEL AT MCR (X)	

N/A

Belev moder 27 (949) 1410-3 Electrostatic precipita

MULTICLONES OR CYCLONES

SCRUBBERS

BAGHOUSE

ESP

IS THE BOILER EQUIPPED WITH :

FLY ASH TEMP AT BOILER BOUNDARY (DEG F)

13 THE BUILER EBUIPPED WITH 1	•	·	
AN ID FAN	<u>yes</u>		
SOOTBLOWERS FOR THE CONVECTIVE	<u>yes</u>		
AN ECONOMIZER	<u>yes</u>		
SOOTBLOHERS FOR THE ECONOMIZER	- Yes		
WHAT TYPE OF ECONOMIZER TUBES?	Stronght		
	,		
OPERATIONS INFORMATION			
AVAILABILITY OF EXISTING BOILER FIRE	ED WITH CURRENT FUEL (%)	9970	
DOES ADEQUATE BACKUP CAPABILITY EXIS	51	yes.	
DOES BOILER HAVE A HISTURY OF SLAGGI	ING	No	•
FOR THE FOLLOWING, SUPPLY TEST REPOR	RTS ON PARTICULATE EMISSIONS COMPL	IANCE OR BOILER EFFICIENCY TESTS IF	AVAILABLE
APPLICABLE PARTICULATE ENISSIONS STA	NDARD		
ACTUAL PARTICULATE EMISSIONS			
STACK TEMPERATURE (DEG F)		335°E	
STACK VOLUMETRIC FLOW RATE (ACFN)		33,350 Ambienet	
AIR TEMP AT FD OR AIR-HEATING INLET	(DEG F)	Hinbrand	
PREHEAT COMBUSTION AIR TEMP (DEG F)			
FUEL TEMP AT BOILER BOUNDRY (DES F)			
BOTTUM ASH TEMP AT BOILER BOUNDARY (DEG F)	***************************************	

ECONOMIC INFOR	MATION	•	
BASIC UNBURDEN	ED OPERATOR WAGERATE (\$/HR)	
BURDENING ON E	ASIC WAGE RATE, A MULTIPLI	ER	
COST OF CONVEN	ITIONAL FUEL (\$/TON)		\$ 25,50 TON FOR COA
COST OF ELECTR	RICITY (\$/KWH)		# 25,50 TON FOR COA # 28,00 For MWH \$4,00 YARD
DISPOSAL COST	FOR ASH (\$/TON)		\$4,00 YARD
STEAM DEMAND E	BY SHIFT BY SEASON BY DAY,	AVERASE HOURLY (BTU/HR)	
SUMER	SHIFT 1	SHIFT 2	SHIFT 3
HON-FRI	16,96000	15,160,000	16,160,000
SAT		14, 800,000	
SUN	14,000,000	14 000 000	14 000,000
WINTER			•
MON-FRI	31735000	31,735,000	31,725,000
SAT	,	27475,000	
SUN		26,300,000	
SPRING AND FALL			
MON-FRI	27,220,0a	27,220 por	27, 220,000
SAT	14 975 0000	74 975 mm	24 975 must
SUN	23,400,000	23,400,000	23, 400,000
SUN 23,400,000 23,400,000 DISPOSAL COST FOR MUNICIPAL SOLID WASTE OR BASE WASTE (\$/TON)		#4,00 4,720	
PROJECTED FUTL	RE DISPOSAL COST FOR MUNIC	IPAL SOLID WASTE OR BASE WA	STE
PROJECTED LIFE	OF LOCAL LANDFILL(S)		
ANNUAL SEMERATION RATE OF BASE WASTES (TON/YR)		1,100	
NAME AND PHONE	NUMBER OF CONTACT PERSON	IN CHARGE OF:	
NAVAL WASTE	DISPOSAL ACTIVITIES	NOVE	PHONE 0

LOCAL COMMUNITY OR COUNTY SOLID WASTE AUTHORITY

BROWN LAND FILL PHONE 1 674-2331

ひとしょう こうしゅん はんしょう



UNITED STATES MARINE CORPS

MARINE CORPS AIR STATION CHERRY POINT, NORTH CAROLINA 28533

11300 LCU 19 NOVEMBER 1985

Systech Corporation Attn: Mr. Gary E. Smith 245 North Valley Road Xenia, Ohio 45385

Gentlemen:

Enclosed is the input data questionnaire required for cost/benefit modelling of RDF fuels for cofiring with coal in stoker furnaces.

Any questions concerning the information provided may be directed to Mr. John Parsons, 1-(919)-466-2890.

Sincerely,

5. W. Mido

STEPHEN W. MIKO
Deputy Facilities Maintenance Officer
By direction of the
Commanding General

Encl:

(1) RDF/Coal Cofired Boiler Model Input Data, Completed Questionnaire

Copy to: Commanding Officer (Attn: Mr. Richard M. Roberts, Code L71) Naval Civil Engineering Laboratory Port Hueneme, CA 93043

ENCLUSURE (1)

NAVAL BASE	Marine Corps Air Station, Cherry Point, NC
BLD #	Building #152
BOILER •	No. 1 and No. 2
PRIMARY CONTACT PERSON	John M. Parson
TITLE	Boiler Plant Operator, Foreman
PHONE #	1-(919)-466-2890

DESIGN FUEL INFORMATION

DESIGN TOTAL FUEL VALUE TO BOILER AT MCR (MAXIMUM CONTINUOUS RATING) (BTU/HR)	110,000,000/Blr
DESIGN FUEL TYPE	Coal
HIGHER HEATING VALUE OF DESIGN FUEL (BTU/LB)	14,724
FRACTIONAL ASH CONTENT OF DESIGN FUEL, AS-RECIEVED	10%, maximum '
FRACTIONAL MOISTURE CONTENT OF DESIGN FUEL	10%, maximum
HYDROGEN MASS FRACTION OF AS-RECIEVED DESIGN FUEL	5.39
SPECIFIC HEAT OF DESIGN FUEL	13,000 BTU/min
DESIGN CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	79.46%
DESIGN RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	0.53%
DESIGN TEMPERATURE OF DESIGN FUE, AT BOILER BOUNDARY (DEG F)	80°
DESIGN EXCESS AIR REQUIRED FOR DESIGN FUEL AT MCR (%)	15%
PERSON PROPERTY OF THE PROPERT	

CURRENT FLEL INFORMATION

CURRENT FUEL TYPE	Coal
CURRENT FUEL VALUE TO BOILER AT MCR (BTU/HR)	91,000,000
(FOR THE FOLLOWING, SUPPLY FUEL ANALYSIS REPORT IF RVAILABLE)	
HISHER HEATING VALUE OF CURRENT FUEL (BTU/LB)	14,724
FRACTIONAL ASH CONTENT OF CURRENT FUEL, AS-RECIEVED	6%
FRACTIONAL MOISTURE CONTENT OF CURRENT FUEL	4.50%
HYDROGEN MASS FRACTION OF AS-RECD CURRENT FUEL	1.41
SULFUR MASS FRACTION OF AS-RECD CURRENT FUEL	0.68
SPECIFIC HEAT OF CURRENT FUEL	13,000/min
CURRENT CARBON LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	51%
CURRENT RADIATION LOSSES AS PERCENT OF MAXIMUM FUEL VALUE TO BOILER AT MCR	0.74
TEMPERATURE OF CURRENT FUEL AT BOILER BOUNDARY (DEG F)	70%
EXCESS AIR REDUIRED FOR CURRENT FUEL AT MCR (%)	17%
MAXIMUM BOILER TURNDOWN ACHIEVABLE WITH CURRENT FUEL (*)	33%
EXCESS AIR REQUIRED FOR CURRENT FUEL AT NEAR MAXIMUM TURNDOWN (%)	21%

BOILER AND EQUIPMENT INFORMATION

FOR THE FOLLOWING, GIVE THE MANUFACTURER, EQUIPMENT DESCRIPTION AND RATED CAPACITIES OR THROUGHPUTS

FUEL FEED SYSTEM	Roto grate Stoker	
GRATE SYSTEM	Detroit Stoker Company	
ASH HANDLING SYSTEM	Allen Sherman Hoff	
MULTICLONES OR CYCLONES	Multiclone	
SCRUTIBERS	NO	
ESP	YES	
BAGHOUSE	NO	

IS THE BUILER EQUIPPED WITH :		
AN ID FAN	YES	
STOTELONERS FOR THE CONVECTIVE	YES	
AN ECONOMIZER	YES	
SOOTBLOHERS FOR THE ECONOMIZER	YES	
WHAT TYPE OF ECONOMIZER TUBES?	Honz-SA-178-A-fin	

OPERATIONS INFORMATION

DOES ADEQUATE BACKUP CAPABILITY EXIST DOES BOILER HAVE A HISTURY OF SLAGGING NO NO					
DOES BOILER HAVE A HISTURY OF SLAGGING NO NO					
FOR THE FOLLOWING, SUPPLY TEST REPORTS ON PARTICULATE EMISSIONS COMPLIANCE OR BOILER EFFICIENCY TESTS IF AVAILABLE					
APPLICABLE PARTICULATE EMISSIONS STANDARD State of North Carolina					
ACTUAL PARTICULATE EMISSIONS 1.21bs/million BTU					
STACK TEMPERATURE (DEG F) 540° F					
STACK VOLUMETRIC FLOW RATE (ACFM) 36,000					
AIR TEMP AT FD OR AIR-HEATING INLET (DEG F) 70°F					
PREHEAT COMBUSTION AIR TEMP (DEG F) NONE					
FUEL TEMP AT BOILER BOUNDRY (DEG F) 70°F					
BOTTOM ASH TEMP AT BOILER BOUNDARY (DEG F) 150°F					
FLY ASH TEMP AT BOILER BOUNDARY (DES F) 120°F					

COMMITTED IN	r	T NICO	омат	T CNN
ECONOM!	<u>.</u>	, TO U		1 Un

BASIC UNBURDENED OPERATOR HAGERATE (6/HR)			Average \$13.50/hr		
BURDENING ON BASIC WAGE RATE, A MULTIPLIER			30%		
COST OF CONVENTIONAL FUEL (\$/TON)			\$54.74/ton	\$54.74/ton	
COST OF ELECTRIC	ITY (\$/KWH)			\$53.50/MWH	
DISPOSAL COST FO	r ASH (\$/TON)			MCAS Landfi	ll on Station
STEAN DEMAND BY	SHIFT BY SEASON BY DAY, AVER	AGE HOURLY (BTU/HR))		
SUPER	SHIFT 1	SHIFT 2		SHIFT 3	
MON-FRI	46000	44000	-	44000	
SAT	45000	43000		43000	
SUN	45000	43000	-	43000	
WINTER					•
MON-FRI	225000	198000	_	198000	-
SAT	207000	191000	-	191000	-
SUN	207000	191000	-	191000	-
SPRING AND FALL					
MON-FRI	75000	72000	-	72000	-
SAT	73000	70000		70000	-
SUN	73000	70000		70000	-
DISPOSAL COST FOR	R MUNICIPAL SOLID WASTE OR BE	RSE WASTE (\$/TON)		\$3.40 plus	6.00/T Transport
PROJECTED FUTURE	DISPOSAL COST FOR MUNICIPAL	SOLID WASTE OR BAS	E WASTE	Increase 5%/	/year
PROJECTED LIFE OF	LOCAL LANDFILL(S)			5+ years	
ANNUAL GENERATION	RATE OF BASE WASTES (TON/Y	R)		10,000T/year	
NAME AND PHONE NU	MBER OF CONTACT PERSON IN C	HARGE OF:			
NAVAL WASTE DIS	POSAL ACTIVITIES	NAME	<u>E. E.</u>	Smith	PHONE # 919-466-4139
LOCAL COMMUNITY	OR COUNTY SOLID WASTE AUTHO	DRITY NAME	Asst.	Sawyer County Mgr. en County, NC	PHONE • 919-637-3338

a

APPENDIX B

TELEPHONE LOGS



SYSTECH TELEPHONE/VISIT RECORD

Project 8017 Sales Date 2/28 Time
Project So 17 Sales Date 2/28 Time To/From: NAME Refuse (Allection dispatch COMPANY Sub-base Bringer Wusle data Phone 206-396-4210
COMPANY Sub-base Bungor wusle data Phone 206-396-4210
Subject
referred by Sick Tackson
206 - 346 - 4216 EXT 320 Transportation Office/Ductor Public Works
Juve Amos - Ext 340 206-396-4216
Refered to Environmental
Hayden Street ExT 251: 206-396-4216
10,000 people . They don't maintain wit or vol
neco rais
Spirity indust > landfieled & Bremthe - Private Entry Sanctary Landfil
5,475 TPY - Charged per truck-load
EST. 5500 TPY? > Some are compacted, otherwarent
> Includes sandblack & askestos will
under special permit
Future contact date — No on sete cusposal
1/4 Pr

They have done an energy evaluation Sale Maggeneir 206-396-4192



SYSTECH TELEPHONE/VISIT RECORD

Project	3017-20	Sales	_ Date	Time	
To/From:	NAME _BY	en Pederson			
ı	COMPANY SU	b-base Bangor	WA F	Phone 206 - 396 - 4253	
Subject	mpletis	in of boiler	survey		
Out	until 1	0:30. Reft 1	eturn call	nessage	
				- has messag	ı
2/11	Accepta	nce test -	talk to	boiler inspecto	7
•	•	Rudy Clark	-does no	t have copy of	4
		acceptance	- Keeler	t have copy of Boiler 877-7506) -
	,	San Bruno -	Public Wor	k 415-859-7500 henston	5
	(HDQ.	John Jo	honston	

Dick Jackson - 206-396-6801

in charge of boiler

Ash handling system out of commission currently

Oz \{ 1196 @ low bads now ~ 95% EA

Oz \{ 9% @ max ~ 65% EA

Stack stacks tests by San Burns - \$

Future contact date______

By Kelen Belencon

two-pleam turbine pumps 1 28
use exhaust steam in DA

& other heaters

Current coal contract
43.80/T delivered

Last years coal 25.50 @ mine \$ 93.64 delivered

Pacific Basin Coal r Carbon Company
Moisture 5.1%
Volatile 41%
F. CAK 51.5%
Ash 7.5%
Sal 0.6%

Operator wagerate - cannot release



SYSTECH TELEPHONE/VISIT RECORD

Project 8017 Sales Date 1/8/86 Time 9:45
TO/From: NAME John Parson Cherry Point, NC
TO/From: NAME John Parson COMPANY Boiler Plant Operator, Cherry Point, NC COMPANY Boiler Plant Operator, Phone 919-466-2890
Precipitators are out - process of rebuilding to Start in Jan-Feb 86
Design carbon loss - should be 0.792 %, not 79.46% as indicated
Will assume compliance for model runs
- Current emissions with cyclones 1.2 lb/mm Btu @ 85% efficiency for cyclones, renembralled emissions would be B lbs/mm Btu w/ New ESP @ 98.5% and Cyclones, Mean emissions would be 0.02 lb/mm Btu INput 0.02 for current emissions (1998) * 8 - 0.02

Future contact date...

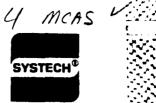
By Helen Belencan



Project	8017 Sales Date 1-22-86 Time 11:15
To/From:	NAMEJohn taison
	COMPANY Cherry Point Marine Phone 919-466-2890
Subject	
	Capacity of ash handling system?
	Vaccumm system - 75 T strage in hopper
	6 in vac. line
	60T coal / day @ 690 ash
	1.3T/HR AT MCR

Future contact date_____

By Kelin Belincon



Project	207			Date //-13	-85Time15 cc	>
					es maint Dept	
					Phone 9/9-466-	<u>53</u> 34
Subject						
(2	K # 164	951111 n	•			
11-7 No A.				icture co	.El	
15	!	are confi	seited to	hi forms e mail	as of insturch	
			- 01 - 00	Chin	y and tions and	Fine
Future cont	act date		Ву	Car	/	



Project	8017 Sales Date 2/28 Time
To/From.	NAME Dale Pluggeneis.
	COMPANY Phone 206 - 396 - 4192
Subject	Sue base Bangor data
	Max Sneed - NCEL Survey for NAVFAC of coal fired boilers will
	be a Bungor Mar 10-11
	De a Bungor Mar 10-11 Peat for coal fired boilers
	5 yrs ago - Woodex - excessive dust
	Pour recommics
	Currently looking at using wood chips &
	possibly tires
	1 Studies of combustible waste Hi will look for numbers
	Art Figur - West Drivilhulies - the find of wood
	E'RDF in general
in	ignil -
	H will call back with data
Future conta	act date
	\mathcal{L}_{-6}



Project 80(7-20 Sale	es Date <u>Z/12</u> Time
TOFFOM: NAME JW ((Wickett)
1 /	1se Bangon Phone
Subject Bailes Data	0
Proximate Analysis	8400 - 13000 Btu/16
	10% Moist Ash fusion 2200°F
Design Fuel	40% Vol
	43% F.Carb
	6-8% A8L
	0.5-1.0%. Sul
	12,000 Btu/16
Source - operat	ion à maintenance instructions exec. summary
•	
	4-78 Acceptance Test
Care Excess Air	
Answers given (received)	0 ₂ 5.31%
11 1	0.0% Nz 21.39
Hydrogen 0.06	N 2 21.31
Unresolved items	Head loss dry gas 8.84%
Mosi	March 1.01
Action(s) to be taken # 41 131	07 Hz0 4.41
#28 5300 lb/HR	unb. carb 0.38
#28 77331 KBhu	/hr nadiation 0.52
Future contact date	reficiency 83.42
	Bv



Project 8017-20 Sales	Date 1-31-86 Time 2:	20
COMPANY Maural any fittle Cre	philipus base Phone 464	304 - - 7302
Not in - left mes	sage to seturn call	20 cech 2/
EDF Boiles of PWC -	sage to select call Mount Ship yard	val)
NEESA 32-617 L805-982-4	Report - Boile Performance & S. S. S. Feb 85	Seport non
netel K. Far	ming	,
Questions raised (answered)	Het 1217 111 lis stiam - Cru + 189 ingland - J. J. Ash 7,337 Cuyds 15.38 Cuyd	= 5332,56 MBtu
Answers given (received)	- 11 Ash 7,337 Cuyds \$15.38/enyd	
Unresolved items		Operations Only
Action(s) to be taken		
Future contact date		· · · · · · · · · · · · · · · · · · ·
	. 4	

By & Belencan



Project 801	7 Sales Date 2/20 - 2/21 - 86 Time
TOUTOM NAME	Mike Raperts
СОМР	ANY NCEL Phone
Subject Hell	Creek boiler data
	r disposal \$1538/cubic yard
2. Sol	led waste - charged per pick-ryp
	annually: # 102,37000
3. Asl	h temperatures unknown-dry system,
1	stimate based on similiar facility
	led waste generation: 28-29 T/day, 5 day/wk
Questions raised (ar	
Answers given (rece	ived)
Unresolved items	
Action(s) to be take	n
Future contact date.	
	Allen Relencan

Little Creek



SYSTECH TELEPHONE/VISIT RECORD

COMPANY ZEALLY	el amphipion	هـــــــــــــــــــــــــــــــــــــ	Phone 804-464-8675	5
Subject				
Steam Demand				
AVG WINTER	. 150,000	16s/hr	- might be li	ш
Summer	60,000	16/hr	v	
Spring/Fall		16/hr		
Ref	used to:			
Fred Tody 46	4-7851			
Y		/ /		
Engineering de	pt Curt 1	Wexel 9	464-7302	
Engineering de	pt Curt 1	Wexel 9	464-7302	
v	pt Curt o	Wexel 9	464-7302	
v	pt Curt	Wexel 9	464-7302	
Engineering de Questions raised (answered) Answers given (received)	pt Curt	Wexel 9	464-7302	
Questions raised (answered)	pt Curt	Wexel 9	464-7302	
Questions raised (answered)	pt Curt	Wexel 9	464-7302	
Questions raised (answered)	pt Curt	Wexel 9	464-7302	
Questions raised (answered)	pt Curt	Wexel 9	464-7302	
Questions raised (answered) Inswers given (received) Inresolved items	pt Curt	Wexel 9	464-7302	



Project 8017	Sales	Date	Time	3:00
To/From: NAME				
COMPA	NY Ecology Dept	Hostwarte & A	Phone 206	459-602
	ound particula			
Paget Sound	air Pollution	Control Agency	4 - 206 -	383-585
•	,05 grs/dscf	- includes	impinger	of filte
			cacce	
2.2 x	.05 = 0.11	16/mm btu		
Questions raised (answ	wered)			
Answers given (receive	ed)			
Unresolved items				
Action(s) to be taken				
Future contact date				
		JURA 1.	1000/	

в [\]

SYSTECH SOLID-WASTE-TO-ENERGY SALES CALL REPORTING FORM

PHONE CALL DATE 8/14/85 TIME
LETTER/BROCHURE CONTACT PERSON Steve Cue
LETTER/BROCHURE CONTACT PERSON Steve Cue
SYSTECH SALESPERSON: Rilard Fromfolke
SUMMARY OF SALES CALL
Plant rebuilt several time
Plant rebuilt several time Current live processes Industrial and MSW
in sequente lines, mixed at final shredden
before pellet mills
Proven Line - hand pick, load by Front loaden
ir separate lines, mixed at final shredden betwee pellet mills Proven Line - shand pick, load by front loaden primary shred, disk screen, ferrous may net, secondary shred 50/so mix ms w to industrial
majest, secondary street 50/50 ming msw
Pellet Mills - about 5 TPH from each will
= 14 cubes, 107PH is desired rate
- Pussible
Cost - Price of \$18 How delivered to sumle
ludius was given

APPENDIX C

MODIFICATIONS TO THE NCEL RDF COST MODEL

APPENDIX C MODIFICATIONS TO THE NCEL RDF COST MODEL

Modifications

As discussed in Section 3.2, twelve modifications were necessary to correct transcription and logic errors in the RDF Cost Model. Two additional modifications were implemented to facilitate data entry. The first was a reorganization of the input data sheet (RDFMDLIN). The original format did not follow a logical sequence. It had requests for information on the same topic scattered throughout the sheet. The inputs are now grouped into the following categories: current boiler operating conditions, conventional fuel characteristics, RDF characteristics, economic factors, true/false questions, and original boiler design information. The second change was to clarify the wording of two of the true/false questions. Line 73 "The boiler has no history of slagging" was changed to "The boiler has a history of slagging," and Line 86 "The boiler has no ID fan" was changed to "The boiler has an ID fan." This re-wording eliminates the potential confusion caused by the use of a negative statement. The original algorithm and the modified final version are summarized in Table C-1 and discussed below.

Modification 1. Three errors that were identified were transcription errors in which the algorithms in the final model differed from the algorithms proposed by WETCO.

- 1(a). To accommodate additional ash which may be generated during cofiring the model estimates the cost of upgrading the existing ash handling system or develops a cost for a new system if one does not currently exist. The logic for assigning the cost of a new system was reversed. The model assigned a cost multiplier of 10 if an ash handling system was in place and a multiplier of 1 if there was not an ash handling system. These multipliers are applied correctly in the final version.
- 1(b). The model contains an algorithm which computes the total hours when co-firing is possible. Two of the intermediate sums were added twice, thus incorrectly stating the grand total. This was corrected by eliminating the duplicate values.
- 1(c). A portion of the algorithm for derating the boiler during cofiring was inverted, resulting in a negative value. This was corrected by putting the factors in the proper order.

Modification 2. The original algorithm for determining air pollution control (APC) device efficiency assumed that various APC devices are mutually exclusive. In actual practice, APC devices are not mutually exclusive; they are commonly used in conjunction with one another to achieve

TABLE C-1. RDF COST MODEL MODIFICATIONS LIST

Modificatio	essesses n Sheet		Column	医腹部骨骨骨骨 医克克氏 计记录记录 计自由 化甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基
Number	Name	#	#	Description
1	WORK1	84	2	((rlc1-r11c1/rlc1)*100
	WORK1	89	3	(520*SUM(r62:64c3,r71:73c3,r80:82c3))+
				(104*SUM(r65:70c3,r74:79c3,r83:88c3))
	WORK2	46	5	(if(r59c1=1,1,10))*(r96c4/10000000*
_			_	r21c1/0.2*r26c5/r9c5/2000)^0.261*32461
2	WORK2	21	5	(1-((if(r53c1=1,0.01,1))*(if(r54c1=1,0.015,
				1,))*(if(r55c1=1,0.05,1))* (if(r56c1=1,0.15,1)))
3	WORK1	57	3	if(r67c1=1,0.25.0.6)*r1c1/r11c1
4	WORK1	80	2	if(r67c1=1,0.25.0.0)=11c1/111c1 if(r67c1=1,r15c1,(r15c1+r23c1+0.5*r24c1
•	WORKI	00	_	-r13c1-0.5*r14c1+(r25c1/0.75)^0.67*0.05))
5	WORK2	42	5	if(r67c1=1,0.25,1)*((5/r26c1*r96c4*r9c5/
•				r1c5*r36c1*24/40)^0.39*672000
	RDFMDLIN	1 52	6	Input 1 day storage
6	WORK2	45	5	(if(r66c1=1,1,0.3))*((r21c1/0.2
				*r96c4/100000000) ^0.368*259691)
7	WORK2	46	5	if (and(r59c1=1,r26c5<=(1.25*r96c1)),
				0,10)*(r96c4/100000000#r21c1/0.2*r26c5
				/r9c5/2000)^0.261*32461
_	RDFMDLIN		6	Input ash handling capacity in TPH
8	WORK2	43	5	if(r37c1<=0.0189,0,(5/r26c1*r21c1/
				0.1*(r96c4/150000000))^0.274
	WORK2	44	5	<pre>#r37c1/0.25*1125000 (if(and(r37c1<*0.0189,r37c1=0),0,(5/r26c1*</pre>
	WURK2	77	3	r21c1/0.2*(r96c4/100000000))^0.508*64923)
	RDFMDLIN	1 53	6	Input O length
9	WORK2	13	5	(r97c1/(1~r21c5))/(r26c5/(r2c5/1000000))
_	RDFMDLIN		6	Input current particulate emissions, lb/mmBtu
10	RDFMDLIN	57	6	Input discount factor
	WORK2	51	5	R39c1
	WORK2	52	5	blank
	WORK2	54	5	blank
	WORK2	56	5	((r98c5-r57c5)*r39c1)/(r50c5/(r35c5/1000000)
11	WORK2	99	5	(r45c1)*(r43c1/2)
	WORK2	100	5	(r98c5-r102c5)*r39c1/(r50c5/(r35c5/1000000))
	WORK2 WORK2	101 102	5 5	r53c5-r99c5 r101c5*1000000/r35c5
	OUT4	68	3	r99c12
	OUT4	69	3	r100c12
	RDFMDLIN		6	Input MSW tipping fee, \$/ton
	RDFMDLIN		6	Input MSW transportation cost, \$/ton
12	RDFMDLIN		6	Input boiler exit temperature, deg F
True/false	WORK2	33	5	((If(r51c1=1,0.46,0.036))*(unchanged)
	WORK2	80	5	(if(r64c1=1,1,0)) * (unchanged)

a cumulative particulate removal efficiency. For example, it is not uncommon to have multiclones followed by an ESP (Cherry Point) or to have a scrubber and a baghouse (Puget Sound). The erroneous algorithm added the individual efficiencies when two devices were present, yielding an efficiency of greater than 100 percent. The algorithm was modified to reflect the cumulative efficiency of multiple APC devices.

Modification 3. The original algorithm for determining co-fire boiler flows at maximum turndown was biased towards RDF-3 utilization. When co-firing RDF-3, it is not generally possible to maintain stable combustion at boiler loads of less than 60 percent of the design MCR. However, field test co-fire evaluations at Hagerstown, Maryland; Erie, Pennsylvania; and Wright-Patterson Air Force Base, Ohio (References 6, 7, and 8), respectively, have demonstrated the ability to successfully co-fire RDF-5/Coal as low as 25 percent of design ratings. The algorithm assumed maximum turndown to be 60 percent of MCR irrespective of the type of RDF specified in the input data. Since 60 percent is appropriate for RDF-3, the algorithm was modified to use either 60 percent or 25 percent, depending on the type of RDF utilized.

Modification 4. The algorithm for estimating excess air requirements did not appropriately address excess air requirements for co-firing RDF-5. The algorithm estimated excess air based on RDF-3 burned in suspension but not on RDF-5, which has essentially the same excess air requirements as coal (References 6, 7, and 8). To account for RDF-5 utilization, a logic gate was added which uses the existing algorithm when RDF-3 co-firing is specified or uses the excess air value which was input for coal when RDF-5 co-firing is specified.

Modification 5. RDF storage was based on the use of an Atlas storage silo. This is not appropriate for RDF-5 and may not even be the most appropriate for RDF-3 (Reference 11). RDF-5 is physically similar to coal and, therefore, can be stored in existing coal bunkers, silos, etc., with only minor modifications (Reference 8). The modified algorithm currently uses the initial Atlas storage cost calculation for RDF-3 but uses 25 percent of that storage cost for RDF-5. This results in an adequate amount of capital for one of several storage options appropriate for RDF-5. Furthermore, RDF storage should be limited to only a one day supply on hand at any given time since coal would still be available as the primary fuel.

Modification 6. The proposed system for delivering RDF from storage to the boiler is a pneumatic system. Although applicable to RDF-3, it is not appropriate for RDF-5. Unlike RDF-3, RDF-5 can be transferred from storage to the boiler on the same conveyors used for coal, with only minimal modifications required (Reference 7 and 8). The original algorithm priced out an entirely new delivery system for either RDF-3 or RDF-5. The portion of the algorithm which priced the RDF-3 pneumatic delivery system was left intact, but it was appended with a subordinate algorithm which applies one—third the cost calculated for the pneumatic system when RDF-5 is specified.

Modification 7. As addressed in Modification 1(a), the model did account for the potential need to upgrade the existing ash handling system to accommodate the additional ash associated with RDF co-firing. However, that algorithm assumed that an upgrade would always be necessary. There was no check to compare the co-fire ash generation rate to the capacity of the current ash handling system, thereby verifying the need for upgrading. This problem was addressed by adding an additional model input to identify the design capacity of the ash handling system and a logic gate to compare the co-fire ash generation rate against the system capacity. If the co-fire ash generation is more than 125 percent of design ash capacity, the cost to upgrade the ash system is calculated as before; otherwise, no additional cost is assigned for ash handling system modifications.

Modification 8. The model contained an algorithm which estimated capital costs for long or short conveyors. This was used to establish an RDF delivery cost and was based on the assumption that the RDF production plant is on base, near the boiler. In this situation, it would be more appropriate to assign the cost of the delivery conveyors to the RDF producer, incorporate any additional cost into the delivered RDF price, and avoid addressing RDF delivery cost as a separate item. In many instances, the production facility may not be near the base and transportation would be via truck. Thus, the algorithm was modified to yield a zero cost for RDF delivery via conveyors and to assume the input RDF price includes delivery costs.

Modification 9. The original model estimated a theoretical flyash fraction as a function of furnace velocity only. Although that approach is not incorrect, flyash fraction can be more accurately estimated by back-calculating it based on the following: (current particulate emissions)/(l-APC efficiencies) = total ash lofted as flyash. This assumes that the flyash fraction is constant and that APC efficiencies are constant. A model input for the current emissions rate was also added.

Modification 10. The original SIR algorithm did not follow Military Specification, NAVFAC P-442 (Reference 5). The SIR algorithm used an annualized capital cost based on annual interest rate and represented only the first year costs. It did not yield the return on investment (ROI) over the life of the project, which in this case is 25 years. To correct this, the SIR was changed to a Type I SIR analysis. A Type I analysis is utilized when "a given requirement is already being met at the present time, but a better solution is perceived. In the context of economic analysis, 'better' specifically refers to a proposed alternative whose total NPV [net present value] cost is lower than that of the existing alternative (the status quo) over the same period (project life). In such a case, the justification for implementing the proposed alternative is primarily economic...." (page 28, Economic Analysis Handbook, NAVFAC P-442, July 1980).

Modification II. To account for the utilization of base-generated solid waste to support an RDF production facility, an algorithm was added which applies a credit to the SIR algorithm for avoided solid waste disposal cost. Therefore, for each analysis, two SIRs are estimated; one includes the credit for avoided cost, and one does not. The estimate of avoided cost is based on the following assumptions: transportation and collection costs cannot be

avoided. The solid waste still has to be collected and then transported, whether to landfill or to the RDF production facility. Furthermore, only one-half of the disposal cost can be avoided because RDF production facilities typically have a 50 percent fuel, 50 percent rejects ratio. The rejects must still be landfilled.

Modification 12. The model originally used the flue gas temperature at the stack for the boiler efficiency calculation. This can lead to erroneous results, especially if a wet scrubber is used, which lowers the flue gas temperature without reclaiming the energy. The ASME Power Test Code efficiency test uses the flue gas temperature at the boiler, economizer, or air preheater exit. To correct this, the model input was changed to ask for boiler exit temperature rather than stack temperature. The algorithm was correct in all other respects and was, therefore, left unchanged.

The following computer printouts are the output data obtained as each modification was implemented. The outputs show the individual effects of each modifications as well as the final, cumulative effects. Modifications I through II are based on Cherry Point data. Modification 12 is illustrated with Puget Sound data, as Puget Sound was the only facility affected by this modification. The individual outputs, which were effected by the modification, are underlined and can be compared to the original program (Run I outputs).

Summary of Out + data		Original Program	Program	Modification 81	ton #1	Modification B2	10n B2	Modification 83	10 n 8 3	Nodification 84	on DA
		Run #1		Basic errors	or s	APC efficiency	1 ency	Max :urndown	§	Excess atr	
variable											
Gefinition	CNITS	RDF COM	CONVENTIONAL	40F	CONVENTIONAL	ADF CON	CONVENTIONAL	96 98	CONVENTIONAL	405 COM	CONVENTIONAL
	2	COF : RING	FUEL	COFTRING	FUEL	CJF14;WG	PJE	00F:R:W6	<u> </u>	COFTRING	13E)
ENTHAL PY TRONSFERED TO STEDM, AND HOURLY, TOOK AMPLICABILITY	BTUP 7.	7.48€+07	7. 48€+07	5.07E+07	5. 07E+07	5.075+07	5.07€+07	4.91E+J7	4.315+07	5.30€+07	5.30€+07
MCR, ABS MON FOR COFIRED CASE (REPARTED AT HI VELOCITY)	BTUH 7.	7. 97E+07 7	7. 47E+07	7.97E+07	7.47E+07	7.97€+07	7.47E+07	7.97E+07	7.47E+07	8. 67E+07	7.47E+07
MOXIDILIA TURNOONA STERM MOTING, SEGM BTLM	BTUH 4.	4. 70E+07	Ą	4, 70€+07	9	4. 70E+07	S	1.965+07	ş	4. 76E+07	ş
BOILER EFFICIENCY AT MCR	NOVE	o. 75	0.82	6. O	0.82	ō. 73	0.82	9. K	0.82	0.76	o.82
BOILER EFFICIENCY AT AVENGE OUTPUT	NOE	0.73	28 .0	6.0	0.82	6. 6.	o. 8	0.74	o.	0.76	9. H
MAXIMEM STEAM DENGME (MSD)	BTUH 2.	2.23E+08 2	2.20€+08	2.22E+08	2. 23E+08	2.23£+08	2.25E+08	2.25€+08	2.25£+08	2.25E+08	2.25€+08
DEROTE	NOVE	90.00	9	8	9	0.00	ş	9.0	¥	0.0	Ą
TOTAL FLEE INAUT ENTHALPY, AMERICE	BTUH 15.	1.025+08	9.12€+07	6.80€+07	6. 16E+07	6.80€+07	6. 18E+07	6. 61E+07	5. 99E+07	7.00E+07	6. 46£+07
RDF FLOWANTE, AMERGEE	¥	3.24	g	2.16	ş	2.16	Ę	2.10	9	2.2	9
COMPRIGNAL FLEL INAUT ENTHALPY, AVERAGE	ГВ/НЯ	4153	6193	69/2	4196	5769	4196	2893	+065	28853	4389
SOLID RESIDUE GENERATED, AVERAGE	- TB/HB	1248	410	ш	277	111	377	93/	989	786	80
CARBON CONTENT OF SOLID RESIDUE, MAY HOURLY AT MCR	NONE	0.28	60.03	0.23	0.09	0.23	0.09	0.24	0.03	0.22	િજી ઉ
FLYASH FRACTION OF SOLID RESIDUE, AVERAGE	NONE	o. ₹	6.23	0. 1 2	6.23	0.42	6.3	0.42	6.33	0.42	6. <u>13</u>
FLYASH ENISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT MCR	LB/HR	-415	87	-415	8 7	-	0	415	8 ?	\$	96-
EMISSION OF 159, MAX HOURLY M/ EXISTING ONTR. AT MOR	LB/MMBTU	۳. ج	-1.07	-3.92	-1.07	0.01	0.00	-3.92	-1.07	-3.9!	-i.07
Uncontrolled Flyrsh emission, Max Hourly At MCR	LB/mmBTU	4.69	1.28	4.69	1.28	4.69	1.28	€9.4	1.28	4.69	1.28
COMBLISTION AIR RATE, AMERICE	LB/HR	94616	77885	160029	£2764	63091	\$2764	61.553	51120	59789	32136
COMBLISTION AIR VOLUMETAIS FLOWARTE, INCEMBE	ACSH	21026	17308	14050	11725	14020	82711	13634	1:360	13287	12266
NET FLUE GAS RATE, AVERAGE	#/ED	103991	83669	68336	28995	69398	26682	67476	54916	66300	59295
HET FLUE BAS VOLUMETRIC FLOW, AVERAGE	ACFI	47361	52296	21693	17334	21693	17334	20220	22393	21738	18133
EMISSION ONTR. DEVICE RESULED EFFICIENCY (EXISTING DEVICE)	ğ	СI	N	N	~	-		~	64	e)	٥
NEW EMISSION COMPTOL DEVICE REQUIRED 1= YES	NON:	0	c	0	0	٥	0	-2	o	0	Э

Summary of Out & data		Original Program	Program	Modification 81	19 60	Modification 42	9 2	Modification #3	10m #3	Modification 64	1 wo
		Ros •		Rasic errors	Ę	APC efficiency	1 ency	Max turndown	e e	Excess air	
e_ianian]e											
definition	UNITS	1 6	COMPATIONAL	ADF CON	CONFONTIONAL	70% QQ	CONVENTIONAL	207	CONVENTIONAL	5	CONVENT, SNOL
		COFTRING	गुस	COFIRING	দায়	COFTRING	궠	COFIRING		COFTAING	댎
ELECTRIC POWER COST FOR FD SYSTEM, AVERAGE	\$/HR	3. 3.	\$2.17	\$1.76	\$1.47	\$1.76	\$1.47	\$1.7:	\$1.45	91.66	3:3
ELECTRIC POWER COST FOR 10 SYSTEM, AMERICA	\$/HR	59.93	\$0.00	\$3.55	\$0.00	\$3.55	\$0.00	53.33	\$0.00	\$3.38	% 0.00
MISC BLECTRIC POWER COSTS, AVERAGE	\$/HR	13.71	\$0.00	35 84	\$0. 00	36 .98	\$0.0	\$6.76	\$ 0.00	\$7.:0	\$0.00
SOLID RESIDUE BENERATED, MAI HOURLY AT MCR	B/HB	1169	60*	1170	60	1170	604	0711	604	1257	5
PHINTEL LABOR COST, BURDENED	\$/YR	\$314056	428 777	\$314056	111.925	\$314056	\$25 0	4314056	11,955	\$314056	¥226777
CHEROTORS HER SHIFT	HOW/SHIFT	2.15	:. 8	2.15	: B	2.15	1. 13	2.15	<u>6</u>	2.15	1.53
CONVENTIONAL FLEL COST, AVERSAE	\$/HR	\$1.14	\$170	97.8	\$115	\$76	\$115	*	\$111	\$78	\$120
NOF PLEL COST, AMENGE	\$/HR	3	¥	3	¥	ğ	¥	独	9	8	¥
ASH DISPOSAL COST, AVERABE	\$/#B	8 0.00	\$0.00	\$0.00	90. 00	\$0.00	8 0.0 8	80.08	\$0.00	80.08	8 0.00
OPERATING HRS/YR IN COFIRED STEAM SUPPLY RONGE	HOUPS	4717	\$ 259	4717	6224	4717	6 224	82	8538	4717	₹ 259
INCIREMENTAL INDINITENDANCE COST, PRAUM.	\$/YR	\$220445	¥	299660	¥	099884	¥	\$68 720	9	\$91274	9
AMPLUBILITY, FRACTION	30	0.72	0.95	0.72	0.93	0.72	o. 33	0.72	8. °C	0.72	0.95
ANNUAL STEAM PRODUCTION, NET	₽TU	3.53€+11	4.66E+11	2.39€+11	3.16€+11	2.39€+11	3.16E+11	3.09€+11	4.08E+11	2,50€+11	3.30E+11
RELATIVE ELECTRIC POWER PANIAL COST	\$/YR	\$105445	\$13488	\$57711	\$9138	111/158	\$9138	1327	\$11805	\$57315	\$323
HANDAL COMMENTIONAL FLEL COST	8/YR	536779	1056253	18731	715367	357931	715567	464113	324365	368721	748548
ANNIAL RDF FUEL COST	\$/YR	8381548	¥	\$254421	¥	\$254421	Ž	323898	G.	\$262090	9
ANUAL PSH DISPOSAL COST	8/YR	\$	\$	\$	\$	3	3	\$	\$	\$	\$
PANLAL YEM DISPOSAL COST	8/YR	¥	000164	g	\$94000	9	\$94000	¥	000468	5	894000
FURNICE COLD (MONTING CO & SMOKE) IF = 1	3OE	0	9	0	Ę	•	¥	0	¥	0	¥
NEW MAX EMISSIONS ARTE 11/ NEW CONTROL DEVICE	LB/MBTU	4.69	£	4.69	9	4.69	¥	4.69	9	4.69	9
ואבעוסבים וא סאסודמע סספד											
BAME CAPITAL COST OF STORAGE SUBSYSTEM	•	\$547129	9	\$5 €3797	9	\$543797	9	\$544595	ş	\$229624	ş

Summary of Out & oata		Original	Original Program	Modification #1	10 mot	Modification 62		Modification 63	ition 03	Modification 84	100 #
		Run #1		Basic errors	ž	APC efficiency) ency	Max turndown	ndoen	Excess air	î.
9.C8:.49.											
08*******	STIM	5	COMPENTIONAL	NOC 36:	CONVENTIONAL	405	CONVENT; 3NA.	70°C	DOMENTIONAL	RDF CQ	CONVENTIONAL
		90E:30C	35 3	COFIRING	FUEL	COFTRING	ų,	SMIRIJCO	10E	5M1913G2	J
BARE CAPITAL COST OF LONG MEDIANICAL CONVEYOR	•	\$162283	g	162291	9	16231	9	\$162291	9	\$166085	9
BARE CARITYL COST OF SHORT NECHONICAL CONNEYOR	•	3	9	\$	¥	0\$	9	3	9	\$	g
BANE CHOTTAL COST OF TOF DELIVERY SYSTEM	-	\$400705	g	\$400731	ş	\$400731	3	\$40073:	9	#13363	¥
BARE INCREMENTAL COST OF ASH HANGLING SYSTEM	•	\$234549	¥	426074	¥	\$26074	¥	\$26265	9	\$26325	g
BARE INCREMENTAL CAPITAL COSTS FOR ENISSIONS CONTROL.	•	\$	Æ	\$	¥	\$	¥	3	¥	\$	Se Se
BARE INCREDENTAL COST FOR BOILER NOBIFICATIONS	•	8.32.7228	9	15751	¥	\$327251	ş	\$32725!	ş	6338165	9
BARE 1074L INCREMENTAL CAPITAL COSTS	•	\$1671894	9	\$1460145	5	\$1460145	9	\$1461133	g	\$1503189	\$
BURODNED TOTAL INCREDENTAL CAPITAL COSTS	•	\$2206900	¥	\$1927391	¥	6 1927391	£	\$1928695	ş	\$1984209	¥
CADITAL RECOVERY FACTOR	9Q.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0, 13
ANNUALITED COST OF CAPITAL	\$/YR	\$281380	g	8542742	Æ	242424	Ž	\$245905	g Ž	\$252987	3
TOTAL CANALAL DAM COST	\$ /YR	\$1558273	\$1296218	1072777	\$9514B2	11072777	\$95148 2	\$11112	\$1162947	\$1093454	1984861
TOTAL ANALAL COST INCLUDING COST OF CAPITAL	8/ %	\$1839652	\$1236218	\$1318520	\$951482	\$1318520	\$951482	\$1517020	\$1162947	\$1346441	*88486
TOTAL COOK PER MILLION BTU OF STEAM	\$/IPBTU	\$5. 21	82.78	\$5.51	\$3.05	\$5.51	\$3.05	£,91	8.8	\$5.38	8.
SIR (SAVINES/IMESTNENT) AT EQUAL ANNUAL STEAM PRODUCTION	Š	-2.8 8	¥	-1.43	9	-1.43	¥	1.58	9	-1.37	9
TOTAL OUR COST PER MILLION BTU OF STEAM	S/MOBTU	₹ \$	12.78	£.49	53.05	\$.49	\$3.02	= ≰	42.85	\$.37	8.5
08M COSTS FOR ALLVERIZER IF NOT ROP BUT COOL USED AS ASF	\$/YR	\$0.00	¥	\$0.00	¥	\$ 0.0	ã	\$0. ⊗	F	8.0	9
TIDNG PER YEAR RIDF REGULINED	LPY	15862	£	10177	9	10177	¥	131%	¥	10494	ş

Summary of Out + data		Modifica	Modification P5	Modific	Modification D6	Modification #7	tion 87	Modification #8	tion #8	Mocufication #9	10m 83
		RDF storage	age.	ADF delivery	ivery	Ash handling	lıng	Delivery	Delivery cost added,	Flyash fraction	act ton
ð romtum.								ous/éwon	Long/short conv. del.		
OBSTROOM	UNITS	ë B	CONVENTIONAL	9 5	COMPATIONAL	RDF CO	CONVENTIONAL	70%	CONVENTIONAL	ROF	CONVENTIONNE
		COFTRING	FIEL	COFTRING	नास	COFTRING	गुर	COFTRING	महा	COFIRING	E
ENTINGED "TRANSFERED "O STERM, ANG HOURLY, 100% AVAILABIELTY	HUTB	5. 07E+07	5.07€+07	5. 07E+07	5.07E+07	5.07E+07	5. 07E+07	5.07E+07	5. 07E+07	5.07€+07	5.075+07
MCA, ABS MAY FOR COFIRED CASE (REPAIRED AT HI VELOCITY)	нля	7.97.407	7.47E+07	7.97E+07	7.47E+07	7. 97E+07	7.47E+07	7.97E+07	7.47E+07	7.97E+07	7.47E+07
MOZINEM TURNDOLM STEEM NOTING, SERM BILM	BTL	4. 70£+07	5	4. 70E+07	9	4. 70E+07	¥	4.70E+07	9	4.70€+07	9
BOLLER EFFICIENCY AT MOR	¥Q.	0.73	0.85	0. K	0.82	o. 73	0.62	0.75	0.82	0.75	o. 8 2
BOLLER EFFICIBILY AT AVERSE OUTPUT	90	K.0	9 38	0.75 7.75	0.82	0.73	98	6. 15.	9 8	0.75 E	o M
WOXINGE STEAM DEMOND (MSD)	влин	2. 25E+08	2.25E+08	2.255+08	2,25€+08	2. 23E+08	2. 23E+08	2.23E+08	2.23£ +08	2.25€+08	2.2 3€ +08
3.00%	90K	9.00	£	0.0	ş	0.0	¥	0.0	9	8.6	¥
TOTAL FLEL INOUT ENTHALPY, AVERAGE	HUR	6. BOE+07	6. 1BE+07	6. BOE+07	6. 18E+07	6.80E+07	6. 18€+07	6. BOE+07	6. 18E+07	6. 80E+07	6. 18€+07
705 FLUMBATE, AVERAGE	ŧ.	2.16	9	2. 16	ş	2.16	ş	2.16	Ş.	2.16	9
(MATAL) THAT SHOUL ENTHALPY, AVERAGE	LB/HR	5769	4196	2769	4 196	2769	4196	5769	4196	5769	4 1%
SOLID RESIDUE RENERATED, AVERAGE	E/E	<i>EEE</i>	277	E	277	E	277	EE.	277	E	713
JARBON JONTENT OF SOLID RESIDUE, WAX HOURLY AT HOR	NOVE	0.23	6.0	0.23	0.03	0.23	0.03	0.23	0.03	0.23	6.33
69	NOVE	0.45	£.0	9.	0.23	o.	0.8	o. *	o.3	3.0	<u>න</u> ර
E. MSH. EMISSION RASOLUTE AND EXISTING CONTING, DEVICE AT MCR.	LB/HR	-415	85	-415	86 -	415	96-	415	8 7	~	0
EMISSION OF 150, WAT HOURLY WY EXISTING ONTRE, AT NOR	UB/MMBTU	² .	-1.07	3.8	-1.07	-3.92	-1.07	-3.92	-1.07	0.08	8.0
JACONTROLLED FLYASH EMISSION, MAY HOURLY AT MCR	LB/MRBTU	4.69	1.28	4.69	1.28	4.69	1.28	4.69	1.28	6.01	1.28
COMBLETTON AT A GATE, PARENCE	E/#8	16029	52764	63091	2 276 4	16029	52764	16029	52764	63091	3 2764
CORRESTION AIR VOLUMETRIC FLOWRATE, PACENCE	#50a	14060	1173	14020	11725	14020	11725	14050	11725	14020	11.725
MET FLUE BAS BATE, INVERSIGE	¥/97	9338	28995	69398	28682	69338	26682	69396	26682	69338	28995
HET FLJE BAS VOLUMETRIG FLDM, AVERAGE	1601	21893	17334	21893	17334	21893	17334	21893	17334	21893	17334
EMISSION ONTR, DEVICE ASSUMED EFFICIBACY (EXISTING DEVICE)	90 <u>.</u>	۲3	61	~	2	2	63	£1	62	••	
NEW EMISSION COMPTOL DEVICE REGULATED I= YES	NOE	0	0	0	0	0	0	0	0	0	c

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sata + sata		Modification #5	2	Modification #6	10m 8 6	Modification 47	10n 4 7	Modification 88	30 mot:	Modification 69	30 mot
		RDF storage	u ó	RDF delivery	ier,	Ash handling	541	Delivery	Delivery cost added,	Flyash fraction	act:or
G. Control								ious, suo	.oncishort conv. del.		
seficition	STIMO	RDF CO	CONVENTIONAL	3	CONVENTIONAL	RDS COM	DONVENTIONAL	RDF COA	CONVENTIONAL	PDF CO	CONVENTIONAL
		COFIRING	PUEL	COF141NG		50F181%6	JEL	00F141NG	1 3 03	COFTRING	ų. Į
ELECTRIC DOWER COST FOR FD SYSTEM, AVERAGE	\$/HR	\$1.76	\$1.47	\$1.76	\$1.47	\$1.76	\$1.47	₹: 7£	\$1.47	5 176	\$1.47
ELECTRIC POWER COST FUR TO SYSTEM, PARRAGE	8 /₩	£. 55	\$0.00	\$3.55	\$ 0.00	\$3.55	\$0.00	\$3.55	\$6.00	£ 3.55	80.0
MISC ELECTRIC POLER COSTS, AVERAGE	\$/HR	3. 3	\$0.00	\$6.92	\$0.00	\$6.92	\$0.00	36.98	\$0.00	£ 6.92	\$0.0¢
SOLID RESIDUE DESERRIED, MAX HOURLY AT MCR	LB/HR	1170	60♦	1170	604	1170	604	1170	604	1170	6
PANUK LABOR COST, BURDENED	\$/YR	\$314056	11.226 777	\$314056	¥226777	\$314056	\$226 777	\$314056	111.000	\$314056	111,923
OPERATORS PER SHIFT	INS/NON	2.15	3	2.15	1.55	2.15	. S	2.15	: R	2.15	:: R
CONVENTIONAL FLEL COST, AVERGRE	8 // 3	\$78	\$115	\$76	\$115	\$ 7 8	\$115	\$76	\$115	\$ 7 8	\$115
RUF FUEL COST, AMENOGE	\$/HB	Ş	Ş	\$	¥	ğ	¥	83	¥	ğ	¥
ASH DISPOSAL COST, AVERAGE	\$/HR	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0. 00	\$0.00	\$0. 00	\$0.00
DPESATING HAS/YR IN COFINED STEAM SUPPLY RANGE	HOURS	4717	6224	7174	6224	4717	6224	4717	4229	4717	4229
INCREMENTAL MAINTENANCE COST, RANDAL	\$/YR	36 1940	Ą	£699A3	9	\$102909	9	\$78806	¥	09988	¥
AMPLUBBLLITY, FRACTION	30	0.72	6.3	0.72	9.32	0.72	8.38	9.75	6. S	0.72	9.93
AMILA STEAM PRODUCTION, NET	вп	2. 39E+11	3.16€+11	2.39€+11	3,16€+11	2.39€+11	3.16€+11	2,396+11	3.16E+11	2.39€+11	3.16€+11
RELATIVE ELECTRIC POWER ANNUAL COST	\$/YR	11772	\$9138	\$57711	\$9138	\$57711	\$9138	\$57711	\$9138	\$57711	8616\$
AMJAL COMPENTIONAL FLEL COST	SYYR	357931	715367	357931	715567	357931	715567	357931	715567	357931	715567
HAMLAL RDF FUEL COST	8/YR	ESAN 21	9	154453	9	124453	9	RIVIN	9	\$254421	¥
GHALLAL RSH DISPOSAL COST	\$/YR	8	9	3	3	3	3	9	3	\$	\$
ANNJA, MSH DISPISAL COST	8/YR	¥	\$94000	¥	894000	Ę	894000	5	000+6\$	¥	\$94000
Fushage dold (noking to 8 shoke) if ϵ .	¥0¥	0	£	0	9	0	Æ	0	¥	0	9
NEJ HOX ENISSIONS RATE W/ NEJ CONTROL DEVICE	UB/MBTU	€9.	5	€9.4	9	4.69	£	€9.4	¥	6.01	Ę
INCLUDED IN CAPITAL COST											
BANE CAPITAL COST OF STORAGE SUBSYSTEM	•	\$103747	9	\$543797	9	\$543797	9	\$543797	¥	\$54 3797	9.

Summary of Out & cata		Medification #5	110m #5	Modification #6	tor #6	Medification #7	10n #7	Modification 88	10n 8 8	Modification #9	11on 6 9
		RDF storage	a ó e	QDF Selivery		Ash handling	gi n	Delivery	Delivery cost added,	Flyash fraction	raction
8 (24) Le								Jous/Syon	Long/short conv. cei.		
cefinition	347.15	P. C.	CONVENTIONAL	ADS SON	CONVENTIONAL	ADF.	CONVENTIONAL	SE SE	CONVENTIONAL	9	CDAVENT COMP.
		COFIRING	ij	00F;RING	떣	COFIRING	ਸੰਦ	COFT91MG	댎	COFIRING	
SARE CAPITAL COST OF LONG MECHANICAL COMMEYOR	•	\$162291	9	\$162291	3	\$162291	Ą	3	9	162391	ş
RARE CAPITAL COST OF SHORT MECHANICAL CONNEYOR	•	3	¥	0	æ	3	¥	0\$	ş	3	9
BARE CADITAL COST OF NOF DELIVERY SYSTEM	•	\$400731	9	\$92476	9	\$400731	3	\$400731	Ş	\$40073;	9
RARE INCREMENTAL DOST OF ASH HANDLING SYSTEM	•	\$26074	g	\$26074	đ	\$260741	9	\$26074	¥	\$26074	5
SARE INCREMENTAL CAPITAL COSTS FOR ENISSIONS CONTROL	•	\$	¥	\$	¥	\$	¥	\$	Ą	\$	¥
RAME INCREMENTAL COST FOR BOILER MODIFICATIONS	•	152/52	¥	152753	g.	152752	NA BA	\$327251	SŽ.	\$327251	5
BARE TOTAL INCREMENTAL CAPITAL COSTS	•	\$1020094	¥	\$1151890	¥	\$1694811	3	\$1297854	9	\$1460145	ş
BURDENED TOTAL INCREDENTAL CAPITAL COSTS	•	\$1346524	¥	\$1520495	g	\$2237151	ş	\$1713167	¥	\$1927391	¥
CAPITAL RECOVERY FACTOR	30.	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
AMMERITZED COST OF CAPITAL	\$/YR	\$171682	g.	\$193863	⊈.	\$285237	⊈	\$218429	g	\$245742	₹
TOTAL HANLAL DAN COST	\$/YR	\$1046058	\$951482	\$1054060	\$951482	\$1087026	\$951482	\$1083277	\$951482	\$1072777	\$951482
TOTAL HANDAL COST INCLUDING COST OF CAPITOL.	\$ /₩R	\$1217739	\$951482	\$1247923	8951482	\$1372263	\$951482	\$1301706	8951482	\$1318520	\$951482
TOTAL COAT PER MILLION BTU OF STEAM	\$/INBTU	\$5.09	\$3. 02	\$5.22	\$3.05	\$5.74	\$3. 02	\$5.44	\$3.05	5.5	\$3.06
SIR (SAVINGS/INVESTINENT) AT EQUAL DANJAL STEAM PRODUCTION	NOE	-1.89	¥	-1.72	¥	-1.28	Æ	-1.66	9	-1.43	¥
TOTAL ON COUST PER MILLION BTU OF STEAM	\$/##BTU	\$4.37	\$3.02	7.4	\$3.02	\$4.54	\$ 3.05	₹	\$3.62	\$4.49	\$3.05
OAM COSTS FOR PULVERIZER IF NOT RDF BUT COPL USED AS ASF	8/YR	\$0.00	¥	\$0.00	¥	\$0.00	¥	\$0.00	¥	\$0.0	9
TONG PER YEAR ROF PEDULRED	Ę	10177	¥	10177	¥	10177	5	10177	ş	10177	Ą

TATALA TATELLE

TOSSER TOTOLOGICA POSSESSOR POSSESSO

Summary of Out & data		Modification 10 & 11	Cumulative changes
		Type I SIR	RDF @ 82/1
variabie		W/disposal credit	
Getr:110n	SLIMO	RDF CONVENTIONAL	RDF CONVENTIONA
		OPFIRING FUEL	COFTRING FUEL
ENTHALPY IRANGFERED TO STEPM, AND HOURLY, 100% AMPLIABILITY	HT.	5. 07E+07 5. 07E+07	3, 09E+07 3, 09E+07
MCR, ABS MAI FOR COFF.RED CASE (REGATED AT HI VELOCITY)	втин	7.97E+07 7.47E+07	8.67E+07 7.47E+07
MAXIMUM TURNDOWN STERM RATING. SERM BTUH	вти	4, 70€+07	1, 98E+07
BOLLER SFICEBOOK AT MOR	YOK	0.73 0.62	0.76 0.82
BOILER EFFICIONEY AT INCRESE OUTPUT	Š	0.75 0.62	0.73
PS1.94F STERM DEMOND (MSD)	BTUH	2.25E+08 2.3E+08	2.38.408 2.258.408
DERBOTE	¥Q.	٥	•
TOTA, FUEL LINGUT ENTHALPY, AVERAGE	BTCH	6. 80€+07 6. 18€+07	6. 73E+07 6. 20E+07
PDF FLOURBITE, AVERGE	Æ	2.16	2.14
CONVENTIONAL FLEE INPUT ENTHALPY, AVERAGE	LB/148	2769 4196	2749 4210
SOLID RESIDUE GENERATED, AVERAGE	LB/HR	TT 2TT	774 278
CARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	SO	0.23 0.09	0.23 0.09
FLYGS+ FROCTION OF SOLID RESIDUE, PARENGE	3	0.42 0.23	0.74 0.29
C_YASH EMISSION RESOLUTE RNG EXISTING CONTROL DEVICE AT MCR	LB/HR	-415 -98	2 0
EMISSION OF 15P, MAX HOURLY M/ EXISTING CNTRL RT MCR	LB/MMBTu	-3.92 -1.07	0.05
UNCONTROLLED FLYRSH EMISSION, MAX HOURLY AT MCR	UB/MMBTU	4.69 1.28	8.11 1.28
COMBUSTION AIR PATE, AVERAGE	LB/AH	63091 52764	57618 52944
COMBUSTION AIR VOLUMETRIC FLOWRATE, AMERGAGE	6 2	14020 11725	12804 11765
WET FILE GAS ROTE, PACENCE	LB/AR	29996 26685	53875 55876
HET PLUE SAS VOLUMETRIC FLOM, AVERAGE	EQ.	21893 17334	20019 23192
EMISSION CHIRL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	¥0¥	5	1
NEW EMISSION COURTCE, DEVICE REGUIRED 1= YES	NO.	0	0

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KASSAN NI KASA

Summery of Out + data		Modification 10 & 11	Cumulative changes
		Type I SIR	RDF @ \$2/T
a contra		W/disposal credit	
כפלוחוניסה	UNITS	RDF CONVENTIONAL	RDF CONVENTIONS
		COF IRING FUEL	COF1RING FUEL
ELECTRIC POWER COST FOR FD SYSTEM, AVERAGE	8/HB	61,76 61,47	\$1,50 \$1,47
ELECTRIC DOMER COST FOR 10 SYSTEM, AVERAGE	\$/Hg	£3,55 \$0.00	\$3.13 \$6.00
HISC ELECTRIC POWER COSTS, AVERGE	\$/HR	\$6.92	\$6.88
SOLIO RESIDUE GENERATED, MOX HOURLY AT MOR	CB/HR	60+ 0211	1257 409
AMALAL LABOR COST, BURDENED	\$/YR	\$314,056 \$226,777	\$314,056 \$226,777
OPE997ORS PER SHIFT	MON/SHIFT	2.15 1.55	2.15 1.55
CONVENTIONAL FIRE COST, AVERGNE	EX.2	\$76 \$115	875 8115
RUF FLEL COST, AMENAGE	\$/HB	\$	#
ASH DISPOSAL COST, AMERAGE	\$/HR	\$0.00 \$0.00	0 \$
UPERATING HRS/YR IN COFIRED STEAM SUPPLY RONGE	HOURS	4717 6224	6629 0629
INCREMENTAL MINTENANCE CLIST, GANLAL	\$/YR	\$88,660	\$32,809
AVAILABILITY, FRACTION	D	0.72 0.95	0.72 0.95
ANNUAL STEAM PRODUCTION, NET	18	2,390€+11 3,2€+11	3.2E+11 4.220E+11
RELATIVE ELECTRIC POWER ANALAL COST	\$/YR	\$57,711 \$9,138	\$73,041 \$12,225
ANNUAL CONVENTIONAL FUEL COST	\$/YR	\$357,931 \$715,567	\$473,769 \$957,346
ANNUAL ROF FUEL COST	\$/YR	1524, 453	426, 941
GANLAL RSH DISPOSAL CUST	\$/YR	0\$ 0\$	0 \$
ANNUAL MON DISPOSAL COST	\$/YR	\$94,000	\$94,000
FUBRACE COLD (MALING DD & SMDKE) IF = 1	¥Q¥	٠	٠
NEW MAX ENISSIONS ARTE W/ NEW CONTROL DEVICE	LB/MBTU	4.69	8,11
INCLUDED IN CAPITAL COST			
BRANE CADITAL COST OF STORBOGE SLUBSYSTEM	•	6543, 797	\$106, 769

Summary of Dut & data		Modification 10 & 11	Cumulative changes
		Type I SIR	RDF @ \$2/!
variable		W/disposal credit	
cefinition	UNITS	RDF COMVENTIONAL	RDF CONVENTIONA
		00F131NG FUE.	COFTRING FUEL
BARE CAPITAL COST OF LONG MECHANICAL COMMEYOR	•	\$162,291	9
BARE CAPITAL COST OF SHORT RECHANICAL CONVEYOR	•	\$	\$
BARE CADITAL COST OF ROF DELLIVERY SYSTEM	•	\$400,731	165, 391
BARE INCREMENTAL COST OF AGH HANDLING SYSTEM	•	\$26, 074	\$
BARE INCREDIENTAL CAPITRAL COSTS FOR ENISSIONS CONTROL	•	\$	\$
FARE INCREMENTAL COST FOR BOILER MODIFICATIONS	•	127,231	\$338, 165
BARE TOTAL INCREMENTAL CARITAL CLISTS	•	\$1,460,145	8540, 226
BURDENED TOTAL INCREDIENTAL CAPITAL COSTS	•	\$1,527,391	\$713,230
CAPITAL RECOVERY FACTOR	MONE	9.54	9.54 9.54
AMAGNIZED COST OF CAPITAL	\$/YR	3	*
TOTAL PARLIAL DAN COST	\$/YR	\$1,072,777 \$951,462	9920, 615 \$1, 196, 348
TOTAL MANUAL COST INCLUDING COST OF CAPITAL	8478	\$0 \$951,462	\$0.91,196,348
TOTAL COAT DER MILLION BTU OF STEAM	UTBBT/8	\$0.00 \$3.02	\$0.00 \$2.83
SIR (SAVINGS/INVESTMENT) AT EQUAL PANJAL STEAM PRODUCTION	Ą	-1.74	-0.19
TOTAL OUR COST PER HILLION BTU OF STEAM	8/MMBTU	84 83	\$3 \$3
OUR COGTS FOR PALVERIZER IF NOT ROF BUT CORL LISED AS AGE	\$/YR	\$	\$
Toks der year rof recautred	7 0€	10177	413, 470
Avoided MSW disposal cost		\$17,000	\$17,000
SIR with disposal credit		33.	\$ 6

!

Cumulative	Danges		UNITS RDF CONFORTIONS.	COFIRING FUEL	BTM \$5.095.407 \$5.095.407	BTJH 8.6F+07 7.47E+07	BTISH 1. 98E+07 NG	1.0K 0.82	NDIE 0.75 0.82	BTIA 2.22E+08 2.22E+08	MDNE 0.00	BTH 6.78:407 6.205:407	TFT 8.14 35	LB/HR 2749 4210	LBAR 774 278	NDE 0.23 0.09	NDE 0.74 0.29	LB/AR 2 0	LB/VBBTU 0.02 0.00	LB/M98TU 8.11 1.28	LB/AR 57618 52944	ACFN 1280A 11765	LB/AR 63875 56876	ACFN 20019 23192		
Summary of Out 4 data		electrople	definition		ENTHALPY TRANSFERED TO STEAM, ANG HOURLY, 100% ANAILABILITY	HON, ABS HAX FOR COFFIRED CYSE (REPOTED AT HI VELOCITY)	HOXINGH TURNGOM STEDM RATING, SEAM BITH	BOILER EFFICIENCY AT NOR	BOILER EFFICIENCY AT AMENGE CUSTAUT	HOLINUM STEAM DERGNO (MSD)	DENATE	TUTIAL FLEE, IMPUT ENTHALPY, PASSMGE	RDF PLOMBITE, AVENORE	CONFOCTIONAL FLEL INPUT ENTHALPY, AVERAGE	Sa.1d reside edeated, averge	CARBON CONTENT OF SOLID RESIDUE, NOT HOURLY AT NOR	FLYISH FIRETTON OF SOLID RESIDUE, AVERGEE	FLYACH ENISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT MCR	ENISSION OF 159, NOX HOURLY W/ EXISTING OWTR. AT NOR	, UNCONTROLLED FLYASH EMISSION, NOX HOURLY AT NCR	COMBLISTION AIR NATE, RVERAGE	CORRESTION AIR VOLIMETRIC FLOWENTE, AMERICE	WET FLUE GAS RATE, DAEDGGE	WET FLUE BIS VOLUMETRIC FLOW, AMERICE:	BNISSION CHIR. DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	* NEW EMISSION CONNECL DEVICE REQUIRED 1= YES

STATE OF PROPERTY SECRECATION SALES SECRETARIES

Cumulative	Changes		UNITS ROF COMPUTIONAL	COFTRING FUEL	\$/HR \$1.60 \$1.47	\$7.13 \$0.00	66.88 \$0.00	LB/HR 1257 409	8/YR 8314056 8226777	HQN/54IFT 2.15 1.55	8/HR 875 8115	BH 953 BH/4	90.00 90.00 PH/s	HOURS 6299 SHUH	4/YR \$49333 NG	NDNE 0.75	BT0 3.20E+11 4.22E+11	8/YR 873041 \$12226	4776 957346 47769 957346	\$/YR \$363701 NG	04 06 8//4	5/4R NA 994000	SE O	LB/restu B. 11 An		PM 697-9018 \$
Summary of Out 4 data		variable	definition		ELECTRIC MOMER COST FOR FD SYSTEM, AVERAGE	ELECTRIC POWER COST FOR 10 SYSTEM, AMERAGE	MISC ELECTRIC POWER COSTS, PAYERGEE	SOLID RESIDUE GENERATED, MAX HOURLY AT MCR	PHALIAL LYBOR COST, BURDENED	DPERATURE PER SHIFT	CONVENTIONAL FLEL COST, AVERGAE	ADF FLEL CLIST, AMERICAE	ASH DISPUSAL CUST, PAERAGE	DPERATING WAS/YR IN COFIRED STEAM SUPPLY RANGE	INCREDIENTAL INGINTENDACE COST, ANNIAL	PARTICIBILITY, FRACTION	CANNELS, STEAM PRODUCTION, NET	RELATIVE ELECTRIC POLICE ANNUL COST	ANNUAL CONFORTIONAL FUEL COST	ANNUAL FOR FUEL COST	SHANINL ASH DISPOSAL COST	CANALIAL MISH DISPOGAL COGT	' FURBOCE COLD (NOKING CO & SMOKE) IF = 1	NEW MOX ENTESTONS RATE IV NEW CONTROL DEVICE	INCLUDED IN CAPITOL COST	BARE CAPITAL COST OF STORAGE SUBSYSTEM

Summary of Out 4 data		Cumulative	3
		Changes	
variable			
definition	UNITS	20 20 20 20 20 20 20 20 20 20 20 20 20 2	COMENTONAL
		COFIRING	g _i
BARE CAPITAL COST OF LIDIG HECHANICAL CONNEYOR	•	3	9
BARE CAPITAL COST OF SHORT RECHANICAL COMPYOR	•	\$	ş
BARE CARITIAL COST OF ROF DELIVERY SYSTEM	•	160364	9
BARE INCREMENTAL COST OF ASH HANDLING SYSTEM	•	\$272138	¥
BANE INCREDIENTAL CAPITRAL COSTS FOR ENISSIONS CONTROL	•	\$	£
BARE INCHEMENTAL COST FOR BOILER WODIFICATIONS	•	\$338165	g
BARE TOTAL INCHEDIENTAL CAPITAL CUSTS	•	\$812464	¥
BANGGIED TOTAL INCREDENTAL CAPITAL COSTS	•	\$1072AS2	¥
CAPITAL RECOVERY FACTOR	NO.	0.13	0.13
* AMMARLIZED COST OF CAPITAL	\$/YR	\$136738	¥
TOTAL AMBERIC CIAM COST	\$/YR	\$1273899	\$1196349
TOTAL ANNAL COST INCLUDING COST OF CAPITAL	\$/YR	\$1410637	\$1196349
TOTAL CIGHT PER MILLION BTU OF STEAM	\$/# @ TU	4.4	82.83
SIR (SAV)NGS/INVESTRENT) AT EIGHL GANDAL STEAN PACINICTION	30	89 17	¥
TOTAL GUM CLIST PER MILLIGN BTU OF STEAM	\$/# @ TU	83.98	8.3
OUN COSTS FOR PULVERIZER IF NOT ROF BUT COPL USED AS ASF	\$/YR	\$0.00	¥
TONS PER YEAR ROF REQUIRED	Ē	13470	¥
			ā

Summary of Dut 4 data		Modifi	Modification 86-1	Cummentative	tive	Modific	Modification 98-2	Cumulat 1	Cummulative changes
		\$0/T R	\$0/T RDF alus	Changes	•	\$30.317	\$30.317t RDF cost	(2:RDF	(2:RDF cost equal
variable		\$2/1	82/T delivery	(1: \$0 +62	(1: \$0 +\$2/T RDF cost)	5 4875)	(same 8/btu as coal!	to roa	to coa! \$/btu)
definition	UNITS	à	COMPATIONAL	302	CONVENTIONAL	je D	CONVENTIONAL	Ş	COMENTIONAL
		COFIRING	ם	COFIRING	FUEL	COFTRING	198	COF TRING	냂
ENTHALPY TRONGSFERED TO STEAM, ANG HOURLY, 100% AMPLILABILITY	вла	S. 07E+07	5.07E+07	5.09£+07	5. 09E+07	5.07E+07	5.07E+07	5.09£+07	5.09€+07
NCR, ABS NAX FOR CUFINED CASE (RENATED AT HI VELOCITY)	BTUH	7.97E+07	7.47E+07	8.67E+07	7.47E+07	7.97E+07	7.47E+07	8. 67E+07	7.476+07
MONTHUM TURNEDOWN STEAM ROTTING, SEEDN BITLM	E E	4. 70E+07	\$	1.98£+07	9	4. 70E+07	ş	1. 98E+07	ş
BOILER EFFICIENCY AT MCR	S Q	0. K	0.62	0.76	0.82	6. K	0.82	0.76	0.82
BOILER EFFICIONCY AT AMERGE OUTPUT	ğ	K o	9 2	ç	0.82	K.	8	6. O	ଥ
MOXIMUM STEAM DENGAD (MSD)	HJT8	2.256+08	2. 25E+08	2.25€+06	2.27E+08	2.22E+08	2.23E+08	2, 23E+08	2.22E+08
DERATE	NO.	0.00	ğ	9.0	ş	90.0	£	0.00	ş
, TOTAL FLEL INDUT BATHALMY, AVERGEE	3 74	6.80E+07	6. 18E+07	6. 73E+07	6. 20E+07	6. BOE+07	6. 1BE+07	6. 72E-07	6.20€+07
ROF FLOWBATE, PAFENGE	Ē	2.16	£	% 1.3	ş	2.16	¥	2.14	9
COMPORTIONAL FLEL INPUT ENTHALPY, AVERAGE	LB/HR	5363	4196	2749	4210	2769	4196	2749	4210
SOLID RESIDUE GENERATED, AMERIKE	\$#/ 6 7	Æ	TT2	ţ	812	E	TT3	ţ	878
CARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	ĕ	0. 23	0.03	0.23	0.03	0.23	0.0	0.23	8.0
FLYASH FRACTION OF SOLID RESIDUE, AVERAGE	ğ	ું જે	6.3	9.	6.23	9.45	6.3	٠ <u>٠</u>	0.23
FLYASH ENISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT NCR	LBAR	113	*	-	0	-415	\$?	-	0
EMISSION OF 150, NOX HOURLY W/ EXISTING OXING, AT MCR	™™ ™	%	-1.07	0.01	9.0	 8	-1.07	0.01	90.0
UNCONTROLLED FLYRSH EMMISSION, MAX HOURLY AT MCR	UB/MBTU	4.69	1.28	4.69	1.28	4.69	1.28	4.69	1.28
CONDUCTION AIR RAITE, AMERIAGE	LINAR	503	KKK	57616	25.34	63091	22754	57618	****
COMBLETTON AIR VOLUMETRIC FLORRATE, AMERICE	3	14060	27,11	12804	11765	14020	11725	12804	11765
HET FLUE BAS MATE, AVERAGE	8#/ 6 7	69396	29995	53873	36876	69398	29999	57853	36876
HET FILE BAS VOLUMETRIC FLON, ANEMORE	ē	21893	17334	\$1002	231%	21633	17334	20013	231%
DIIGGION CHTR. DEVICE ASSUNED EFFICIBICY (EXISTING DEVICE)	NO.	~	٨ı		-	2	~		
MEN ENISSION CONRTCL DEVICE REQUIRED 1= YES	NOK NOK	0	6	0	0	0	0	0	0

Samery of Dat : date		Modific	Modification 88-1	Committee	ž.	Mod'fica	Mod'fication 18-2	Dumulative changes	• changes
		\$0/T RDF plus	F plus	Changes		\$30.31/4	430.31/t RDF cost	(2: ND F c	(2:NDF cost equal
variable		62/T delivery	livery	(1: \$0 +62/	(1: \$0 +\$2/T RDF cost)	*	(same \$/btu as coal)	to coal	to coal \$/btu)
defin.tion	STINO	ě	COMENTIONS	8	CONFORTIONAL	S	CONVENTIONAL	19 2	COMENTION
		COFIRING	룝	COFINING	मुख	COFIRING	FIE	COFIRING	व
ELECTRIC POWER COST FOR FD SYSTEM, AMERICAE	8/HB	\$1.76	\$1.47	\$1.60	\$1.47	\$1.76	\$1.47	\$1.60	\$1.47
ELECTRIC POWER COST FOR 10 SYSTEM, AMERICAE	8//#	a B	80.00	£2, 13	90.08	£.53	% 0.00	\$3.13	40.00
MISC ELECTRIC POLER CUSTS, PARTHEE	\$/HB	સ્ ક્ષ	\$ 0.00	\$6.88	\$0.0	સ્ સ	60.00	\$6.68	80.00
SOLID RESIDLE EDERNIED, WAI HOURLY AT MCR	IB/VE	1170	604	1231	6	1170	\$	1237	604
PANIAL LABOR COST, BURDIED	8/YR	\$314056	11.525	\$314056	1119228	\$314056	111928	8314056	11.525.77
OPERATIONS NEW SALIFT	FINC SHIFT	2.15	.: 83:	2.15	 R	2.15	1.	2.15	.: 13
CONNECTIONAL FLEL COST, MERGRE	8/HR	9/5	\$115	ř.	\$115	876	\$115	š.	\$115
, NOF PLB. COST, AMENINE	8//B	\$	£	*	£	3	£	23	£
ASH DISPOSAL COST, AMENAGE	8/JR	8	30.00	\$0.00	90.08	80.98	\$0.00	\$0.30	80.08
OPEDATING HES/YR IN COFIRED STEAM SUPPLY RONGE	HOUS	4717	1 23	06. 73	653	1117	1 23	8	8538
INCREMENTAL MAINTENENCE COST, FRAUM.	8///R	\$78806	¥	#	9	\$78606	g	1226 #	g
AMILABILITY, FRECTION	Ř	0.72	6.9 8	0.72	98	0.72	9. 18.	0.72	9 18
ANNUAL STEAM PREDUCTION, NET	æ	2.39€+11	3, 16£+11	3.20E+11	4,225:+11	2.39€+11	3.16€+11	3.20€+11	4.22E+11
RELATIVE ELECTRIC POWER ANNUAL COST	\$/YR	11112	\$9138	\$73041	\$12225	11/1/2	\$9138	\$73041	\$12236
ANNAL COMPATIONAL FIEL COST	\$/YR	357931	712367	473769	35 7346	35/331	715567	473769	367346
) ANNUR ROF FUEL COST	\$/YR	\$5032 4	¥	145924	9	\$3084£0	¥	\$408288	¥
ANNLAL ASH DISPOSAL COST	8/YR	8	\$	\$	8	2	\$	\$	8
ANNUAL HISH DISPUSAL COST	\$/YR	¥	894000	£	000%6\$	Æ	000%\$	¥	000+64
FURNICE COLD (NOKING CO & SOLDIE) IF = 1	Ř	•	9	•	\$	•	9	•	£
NEW MOX ENISSIONS NATE IJ/ NEW CONTRIN. DEVICE	LBANKETU	€9*	9	4.69	£	4.69	£	4.69	9
INCLUDED IN CAPITAL COST									
⁸ BARE CAPITAL COST OF STORNEE SUBSYSTEM	•	\$\$43797	£	\$106769	¥	\$\$43797	£	\$106769	£

ummary of Out & data		Modification 68-1	ton 68-1	Cummilative	ķ	Modificat	Modification 88-2	Cummulative changes	changes
		\$0/T RDF plus	snla	Changes		\$30.31/t RDF cost	MDF cost	(2:RDF CC	(2:RDF cost equal
ariable		\$2/T delivery	,	(1: \$0 +\$2/T RDF cost)	. RDF cost)	sames)	(same \$/btu as coal)	to coa! \$/btu)	*/ptn)
printion	UNITS		CONVENTIONS	Š	CONVENTIONAL	ğ	CONVENTIONAL	90	CONVENTIONAL
		COFIRING	ᇤ	COFTRING	PE	COFIRING	댐	COFIRING	म <u>म</u>
RRE CADITAL COST OF LONG MEDIANICAL CONNEYOR	•	\$	9	3	9	3	¥	\$	¥
ARE CADITRE, COST OF SHORT HECHANICISE, CONNEYOR	•	3	9	\$	¥	\$	9	\$	9
AME CARITY, COST OF MOF DELIVERY SYSTEM	•	\$400731	G	16226	9	\$400731	¥	162331	9
INDEPICIENCE COST OF ASH HANDLING SYSTEM	•	\$26074	g	6272138	¥	\$2607	9	\$272138	9
INCREDIENTAL CAPITAL COSTS FOR EXISSIONS CONTROL.	•	8	9	8	9	\$	ş	3	¥
ARE INCREMENTAL COST FOR BOILER MODIFICATIONS	•	127231	9	\$338165	ş	12723	S	\$338165	9
PARE TOTAL INCREDIBITING COSTS	•	\$1297854	S	\$6 12464	9	\$1297854	¥	\$8 12464	£
NUMBER TOTAL INCHEDIATAL CAPITAL COSTS	•	\$1713167	g	\$1072452	¥	\$1713167	9	\$1072452	£
DADITAL RECOVERY FACTOR	ĎĚ	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13
NAURITZED COST OF CAPITAL	\$/YR	\$218429	ş	\$136738	g	\$218429	g	\$136738	\$
'UTRL ROBLIAL OLA CUST	\$/YR	\$82882 6	9951482	\$937140	\$1196348	\$1116962	9951482	\$1318486	61196349
TOTAL PARALAL COST INCLLIDING COST OF CAPITAL	\$/YR	\$1047285	99014B2	77827018	\$1196348	16000011	\$951462	11433224	\$1196349
'OTAL COAT PER MILLION BTU OF STEAM	S/MBTU	æ. ₹	53. 08	£3.3%	12.83	\$5.58	\$3.05	₹	12.83
IIR (SAVINGS/IMESTNENT) RT EQUAL, GNALM, STECH PRODUCTION	306	Ģ	9	ୟ ଟ	ş	-1.81	9	-3.01	g
IOTAL OAM COST PER MILLION BTU OF STEAM	9/19/BTU	13.47	43.0 2	£.33	£.83	19.43	£3.02	54. 12	\$2.83
JAM COSTS FOR PALVERIZER IF NOT ROF BUT CORL USED AS ASS	\$/YR	3 0.00	Ę	\$ 0.0	9	80.00	9	80.08	Æ
TONS PER YEAR NOF REQUIRED	797	10177	9	13470	9	10177	Ę	13470	£
					00				8

THE REPORT OF THE PROPERTY OF

Summary of Dut & data		Modific	Modification 88-1	Cummulative	3 A B	Modufie	Modification 88-2	Cummulative changes	e changes
		F 1/05	\$0/T RDF plus	Changes		\$30, 31/	\$30,31/t RDF cost	(2:RDF	(2:RDF cost equal
#(Celler		\$2/T de	\$2/T delivery	(1: \$0 +\$2)	(1: \$0 +\$2/T RDF cost)	§ ages)	(same \$/btu as coal)	to ros	to coal \$/btu)
entrate)	UNITS	Ď	CONVENTIONAL	1	CONVENTIONAL	S S	CONVENTIONAL	ADF.	COMENTIONAL
		COFTRING	FUEL	COFIRING	PLE	COFIRING	댐	COFIRING	मह
ENTHALDY TOMOSTERD TO STEAM, AND HOURLY, 100% ANDILLOBILLITY	BTUH.	5.07E+07	5.076+07	5.09£+07	5.09€+07	5.07E+07	5.07E+07	5.09€+07	5. 09£+07
MC9, ABS MAX FOR CDF/AED CASE (MERATED AT HI VELOCITY)	HUR	7.97E+07	7.47E+07	8.67E+07	7.47E+07	7.97€+07	7.47E+07	8. 67E+07	7.47E+07
MAXINGS TUBBOOMS STEAM BOTING, SEAM BTUM	RTH	4. 70E+07	9	1.98€+07	¥	4. 70E+07	9	1.98€+07	¥
BOILER EFFICIENCY AT MOR	NOÆ.	0. N	0. B 2	0.76	0.82	0.73	0.62	0.76	0. B2
BOILER EFFICIENCY A" ANERSE OUTPUT	30	9. 15.	0.82	ę K	0.85	0. K	9.0	0.7 K	0.82
MOXIMUM STEEM DEMOND (MSD)	нля	2. 25E+38	2. 25E+08	2.25E+08	2. 25E+08	2.25E+08	2.25E+08	2.25E+08	2.23E+08
DEROTE	, OK	9.0	¥	0.00	3	9.0	Æ	9.0	æ
TOTAL FIEL INDUT ENTHALPY, RMENGE	HJTH.	6. 80E+07	6. 18E+07	6. 75E+07	6. 20€+07	6.80€+07	6.18E+07	6. 75£+07	6.20€+07
RDF PLOMONTE, PAEROGE	Æ	2.16	ş	2.14	¥	2. 16	ş	2.14	£
CONVENTIONAL FIEL INPUT ENTHALPY, AVERAGE	LB/HR	5769	4196	2749	4210	2769	4136	2749	4210
SOLID RESIDUE GENERATED, AVERAGE	#/g]	Œ	277	ŧ	278	##	772	¥.	278
CARBON CONTENT OF SOLID RESIDUE, NOX HOURLY AT NOR	NOK	0,23	0.09	0.23	0.09	0.23	0.03	0.23	0.03
ELYASH FRACTION OF SOLID RESIDUE, INVERIGE	NOVE	°.	0.29	9	0.23	0.45	0.23	0.45	8.0
FLYASH EMISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT MOR	LB/HR	-415	\$	-	0	-415	\$		0
EMISSION OF TSP, NOX HOURLY W/ EXISTING ONTRL AT NCR	LB/MBTU	_د .	-1.07	0.01	%.0	-3.92	-1.07	0.01	9.0
UNDWITROLLED FLYASH EMISSION, MAX HOURLY AT MCR	LB/MBTU	4. 69	1.28	4.69	1.28	4.69	1.28	€9.4	1.28
CONDUCTION AIR RATE, AVERAGE	#1/97	16029	52764	57618	52944	16029	52764	57618	52944
COMBLETION AIR VOLUMETRIC FLOWARTE, PARRAGE	FQ2	14020	22,23	12804	11765	14020	11725	12804	11765
" HET FLUE BAS RATE, AMERIAGE	CB/HR	96269	28682	53875	56876	69396	26682	63875	56876
NET PLUE GAS VOLUMETRIC PLON, AVERGRE	2	21893	17334	20019	231%	21893	17334	20019	33182
ENISSION CNTRL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	HONE	eu	~	-	•	~	N	-	
' WEN EMISSION CONNTD. DEVICE REQUIRED 1= YES	NOK	0	0	0	0	0	0	0	0

表れる主義ななシングと言葉を含めばは異なるなのでは、自然などのなどは異ないというと

Summary of Out + data		Modifica	Modification 88-1	Cumulative		Modific	Modification #8-2	Cumulat 1	Cumulative changes
		\$0/T RDF plus	solo:	Olanges		\$30.31/1	\$30,31/t RDF cost	- 30k:2)	(2:9DF cost equal
9,000		\$2/7 delivery	livery	(1: \$6 +\$2/	(1: \$6 +\$2/7 RDF cost)	s ages)	'same \$/btu as coa.'	P 00 01	to coal \$/btu)
VOITE LAND	STIME	ਲ ਨੂ	CONVENTIONAL	RDF CD	CONVENTIONAL	7 3	CONVENTIONAL	207	CONVENTIONAL
		COF 1R1NG	-1.E.	5₩1#1#00	FUEL	COFIRING	试	9wie1±00	7.JE.
SLECTRIC POWER COST FOR TO SYSTEM, AVERAGE	\$/HR	\$1.76	\$1.47	31.6	\$1.47	\$1.76	\$1.47	\$1.60	\$1.47
ELECTRIC POWER COST FOR 1D SYSTEM, AVERGEE	\$/HR	£3.33	\$0.00	93. 13	\$0.00	53.53	\$0.00	\$3. 13	\$ 0.0
MISC ELECTRIC POMER COSTS, AVERAGE	\$ /HR	3. %	\$ 0.0	\$6.88	\$0.00	\$6.92	\$0.00	\$6.88	\$0.00
SOLID RESIDJE EDREATED, MAI HOURLY AT MOR	-18/H8	1170	60	Ğ	604	1170	€0 ,	1357	\$
ANNUAL LABOR COST, BURDDIED	8/YR	\$314056	1226 TT	\$314056	111922	\$314056	111,925\$	\$314056	\$26 777
DEFRATORS DER GAIFT	FATHS/NGM	2.15	-: R	2.15	 13	2.15	13.	2.15	1.55 52
CONVENTIONAL FLEE COST, AVERGAE	8/HB	\$76	\$115	£.	\$115	\$76	\$115	\$7.8	\$115
ADF FIEL COST, AMERAGE	8/HR	2	9	\$	9	3	ş	S	ş
ASH DISPOSAL COST, AMERICE	\$/HR	\$0. 00	\$0.00	\$0.00	\$0.00	\$ 0.08	8 0.00	\$0.00	\$0.00
OPERATING HRS/YR IN COFIRED STEAM SUPPLY RANGE	HOURS	4717	1 229	96.79 79	8539	4717	1 28	9629	8538
INCREMENTAL MAINTENANCE COST, PANIFAL	\$/YR	\$78806	¥	₩9333	¥	\$78806	¥	\$ 49333	9
AMPLEMELTY, FRACTION	WOK.	0.72	9. 18.	0.72	8.	0.75	6.98	0.72	6. 18
ANNUAL STEAM PRODUCTION, NET	BTU.	2.39€+11	3.16€+11	3.20€+11	4. 225-11	2.39€+11	3.16€+11	3.20€+11	4.22€+11
RELATIVE ELECTRIC POWER CANUAL COST	\$/YR	117753	\$9138	\$73041	\$12225	11112	\$9138	\$73041	\$12236
ANNUAL CONVENTIONAL FUEL COST	8/YR	357931	715367	473769	957346	357931	715567	473769	357346
ANNUAL FIDEL COST	\$/46	\$2035	¥	146924	ş	\$308460	9	\$408288	¥
CHANDAL ASH DISPOSAL COST	8/YR	\$	\$	\$	2	\$	\$	\$	\$
GANNUR. MSH. DISPOSAL. COST	\$/YR	Æ	\$94000	9	000%5	¥	894000	Ę	894000
FLANDCE COLD (MORTING CO & SHOKE) IF = 1	NO.	0	¥	•	¥	0	¥	٥	¥
HEW HOR ENISSIONS RATE 4/ NEW CONTROL DEVICE	LB/MBTU	4.69	¥	4.69	Æ	4.69	¥	4.69	¥
INCLUDED IN CAPITAL COST									
BONE CAPITAL COST OF STORAGE SUBSYSTEM	•	\$543797	¥	\$106769	9	\$543797	¥	\$106769	Ę

Summary of Gut & data		Modifica	Modification 88-1	Cummulative	3 v 6	Hodifi	Modification 88-2	Cummulative changes	e changes
		\$0/T RDF plus	: מומ	Changes	_	\$30.31,	\$30, 31./t RDF cost	(2:RDF ((2:RDF cost equal
-dariable		\$2/T delivery	IVETY	(1: \$0 +\$2/	(1: \$0 +\$2/T RDF cost)	(same	(same \$/btu as coal)	to cos	to coal \$/btu)
Cefinition	UNITS	ž.	CONVENTIONAL	2	CONVENTIONAL	Ð	CONVENTIONAL	λΩŁ	CONVENTIONAL
		20F1R1MG		COFTRING	नुस	COFTRING	ם	COFINING	료
BARE CAPITAL COST OF LONG MECHANICAL CONVEYOR	•	\$	¥	2	9	3	9	\$	¥
BARE CAPITAL COST OF SHORT MECHANICAL CONNEYOR	•	<u>.</u>	¥	3	9	\$	9	3	¥
BARRE CAPITAL COST OF NOF DELIVERY SYSTEM	•	\$400731	g	160364	9	\$400731	5	16236	9
BARE :NCREMENTAL COST OF ASH HONDLING SYSTEM	•	\$26074	₹	\$272138	9	\$26074	3	\$272138	¥
BARE INCREMENTAL CAPITAL COSTS FOR ENISSIONS CONTROL	•	\$	¥	3	9	3	9	2	9
BARE INCREDENTAL COST FOR BOILER HODIFICATIONS	•	1387251	£	\$338165	ş	\$327251	9	\$338:65	¥
BARE 1074, INCREMENTAL CAPITAL COSTS	•	\$1297854	¥	\$812464	9	\$1297854	9	\$812464	¥
BLADDIED TOTAL INCREDENTAL CAPITAL COSTS	•	\$1713167	¥	\$1072452	9	\$1713167	¥	\$1072452	g
CADITAL NECOVERY FACTOR	NONE	0.13	0.13	0.13	0.13	0, 13	0.13	0.13	0.13
APPRIALIZED COST OF CAPITAL	\$/YR	\$218429	9	\$136738	£	\$218429	Æ	\$136738	¥
TOTAL GANLIAL DAN COST	\$/YR	\$828826	9551482	\$937140	\$1196346	\$1116962	8951482	\$1318486	\$1196349
total analal cost including cost of capital	\$/YR	\$1047285	9951482	\$1073877	\$1196348	\$1335391	\$951462	142224	\$1196349
TOTAL COAT PER MILLION BTU OF STEAM	\$/ PP BTU	54.3 8	\$3.02	\$3.36	\$2.83	\$5.58	£ 3.02	\$.53	82.83
SIR (SAVINGS/IMAESTHENT) AT EQUAL AMMIAL STEAM PRODUCTION	Ã	0.49	£	સ જ	¥	-1.81	9	-3.01	¥
TOTAL OUR COST PER MILLION BTU OF STEAM	ULB#4/\$	\$3.47	\$3.02	£ .93	8.8	₹. 67	\$3.02	\$.12	12.83
OUN COSTS FOR PLAVERIZER IF NOT RDF BUT CON. USED AS ASF	\$/YR	\$0.00	¥	\$ 0.00	¥	\$0.00	5	\$0.00	¥
TONS PER YEAR ROF REQUIRED	TPY	10177	9	13470	¥	10177	Æ	13470	9

Summary of Oat 4 data		Modification 12	21	Modification 12	21
		Puget Sound		Puget Sound	
a (a t) ta		WStack Temperature	Frature	W/Boiler exit temp.	: :
definition	UNITS	S	CONFORTIONAL	5	COMPOUTON
		COFIRING	털	COFIRING	덐
EMPALPY TROUGEDED TO STEAM, ANG HOURLY, 1005 AMPLIABILITY	Ē	6. 87£+07	6. 87E+07	6. BCE+07	6. B2E+07
NCCH, ABB MAI FOR COFFIRED CASE (REPOTED AT HI VELOCITY)	HUH	1.186.08	1. 50£+08	1.425+08	1. WE+08
MOZIMLA TURNODAN STEJAH ROTING, SEPAH BITUH	#ITT#	3.50£+07		3.20€+07	
BOILER EFFICIENCY AT MCR	9	3 .	0.87	0.71	9
NOILER EFFICIENCY AT AMENDE OUTPUT	¥	Q.74	0.87	39 8	8
NOLIMIN STEAM DENOMO (NSD)	HJT8	1.50€+08	1. 50€ +08	1.50€+08	1.50£+08
ESTATE	ğ	•		•	
TOTAL PLEL INPUT ENTHELPY, AMERICA	HOM.	9.24E+07	7.91E+07	9.99€+07	8.51E+07
NOF PLOMPITE, PAEDIOSE	Ē	2.33		3.17	
COMENTIONAL FLEL INDUT BRINKLPY, PAERREE	LEVIE	3 25	<u>15</u>	5709	8107
SOLID RESIDUE BENEDATED, AMENGE	LB/M	<u>8</u>	9 *2	1949	8
carbon comdat of solid residue, wax hourly at nor	9	0.49	g.3	0.43	0.3
FLYRON FRACTION OF SOLID RESIDUE, AMERICAE	90	3	0.37	8	0.37
FLYISH EMISSION RESOLUTE ANG EXISTING CONTROL DEVICE AT NCR	LB/AR	m	•		•
ENISSION OF TSP, WAX HOURLY W/ EXISTING CHTR. AT NCR	LB/MBTU	9.	•	9.0	0
UNCONTROLLED FLYNGN EM1991CM, WAL HOURLY AT NCR	CE/MEETU	33.49	3.43	30.71	3.43
COMBLETTION PLIR MATE, AVERAGE	#VE	111778	10tr	94619	80778
CORUSTION AIR VOLUMETRIC PLONMITE, AMENGRE	5	18	16676	21071	17801
WET PLE 996 RATE, PAEDAGE	LBAR	97001	61827	104964	00000
NET FLLE BYS VALUETRIC FLDN, AVENGE	EQ.	1000	20415	17437	30981
BNISSION CMTAL DEVICE ASSUMED EFFICIBLEY (EXISTING DEVICE)	¥Q.	-	-	-	-
MEM EMISSION CONNTOL DEVICE REQUIRED 1= YES	Ď	•	•	•	•

Summary of Out * data		Modification 12	- 15	Modification 12	
		Puget Sound		Puget Sound	
ejqel.48×		W/Stack Temperature	erature	W/Loiler exit temp.	
definition	UNITS	ğ	CONFORTIONAL	RDF CONVENTIONS	
		COFIRING	멸	COFTRING FUEL	
ELECTRIC POWER COST FOR FD SYSTEM, AMERICAE	#/ %	\$1.0	90.89	\$1,12 \$0.95	
ELECTRIC POWER COST FOR 10 SYSTEM, AMERICE	\$/H	\$1.39	\$0.00	\$1.63	
NISC ELECTRIC POWER COSTS, AMERGOE	\$/HR	63.82	\$0.00	\$0.00	
SOLID RESIDUE GENERATED, WAX HOURLY AT MCR	E/4	8	<u>153</u>	2520 1635	
PRALIAL LABOR COST, BURDENED	\$/YR	\$478,870	6345, 786	\$457,072 \$330,048	
OPERATORS PER SHIFT	MON/SHIFT	3.22	2. m	3.08	
COMPOTIONAL FUEL COST, PAERBRE	\$ /HR	302	5	6223	
NDF FUEL COST, AMENAGE	\$/HR	%		% 00.7 %	
ASH DISPOSAL COST, AMENAGE	8/VB	\$14.87	85.28	\$15.59 \$6.44	
DPEROTING HRS/YR IN COFINED STEAM SUPPLY NOWGE	HOURS	8	1929	1959 0529	
INCHEDENTAL HOLINTENPHOE COST, ANNUAL	#A/\$	\$40,580		940,030	
RMILABILITY, FRACTION	yQ.	0.72	8 .0	0.72 0.98	
ANNUR. STEAM PRODUCTION, NET	2	4, 320E+11 5, 880E+11	5.880E+11	4,290E+11 5,840E+11	
RELATIVE ELECTRIC POWER MANUAL COST	\$/YR	83	87,585	442, 934 184, 164	
ANUAL COMPORTIONAL FLEE COST	8.718	11,295,562 12,514,574	2,514,574	11, 400, 361 82, 706, 711	
PHOLYL, RDF FLEL CUST	\$/YR	136, 911		539, 902	
PROLITE, RSH DY AVEL COST	S/YR	993, 548	\$51,234	898, 056 805, 149	
ANNUAL HISH DISPOSAL COST	\$/YR	\$672,000		672,000	
FURNOCE COLD (WOKING CO & SYDKE) IF = 1	Ä	•		•	
NEW HOX ENISSIONS RATE W/ NEW CONTROL DEVICE	LBANGETU	33.49		30.71	
INCLUGED IN CAPITIC, COST					
BANE CAPITAL COST OF STURNEE SUBSYSTEM	•	133,007		8134,675	

THE CONTROL OF PROPERTY SEESEST OF PROPERTY AND PROPERTY ASSESSES FOR THE CONTROL OF THE CONTROL

many of Out 4 data		Modification 12	ı 12	Modification 12	12	
		Puget Sound		Puget Sound		
riable		W/Stack Temperature	perature	M/Boiler exit temp.	tement i	
i first tron	UNITS	ğ	CONFORTIONAL	700	CONVENTIONS	
		COFTRING	ם	COFTRING	떕	
ME CAPITAL COST OF LONG MECHANIDAL COMPEYOR	•	2		\$		
HE CHRITIL COST OF SHORT HECHANICAL CONNEYOR	•	2		2		
ME CHAITRL COST OF ROF DELIVERY SYSTEM	•	\$116, 724		\$114,463		
WE INCREDENTAL COST OF ASH HANDLING SYSTEM	•	*		*		
WE INCREMENTAL CAPITAL COSTS FOR EXISSIONS CONTROL.	•	\$		\$		
WE INCHEDIONIAL COST FOR BOILER MODIFICATIONS	•	\$4.18, 582		PH 10, 093		
WE TOTAL INCREDENTAL CORTS	•	\$668 , 313		9639, 252		
JODIED TOTAL INCREDENTAL CHRITIAL COSTS	•	11 ,200°		\$870,212		
APITAL RECOVERY FACTOR	9	ਨ ਜ	\$6	9.S	\$ 6	
OURLIZE COST OF CAPITAL	\$/YR	\$		\$		
JTFL PROLITE, DAN COST	\$//#	81, 984, 725 42, 919, 181	18, 919, 181	82, 076, 335 83, 100, 072	3, 100, 072	
TIFIL THALLEL COST INCLUDING COST OF CAPITAL	\$/X	8	10 42, 919, 181	9	90 83, 100, 072	
JTAL COST PER NILLION BTU OF STEAM	S/MeBTU	8	8	8	ß	
IR (SAVINGS/IMESTRENT) AT EQUAL GANLA, STEON PRODUCTION	Ď	1.73		2.18		
JTAL OLA CUST PER MILLION BTU OF STEAM	\$ / POESTU	3.3	14.91	2.3	\$5,31	
IN COSTS FOR PLLYENIZER IF NOT ROY BUT COPL USED AS AGF	\$/YR	*		2		
DIG PER YEAR ROF REQUIRED	Ĕ	18, 455		19,951		
voided MSH disposal cost		1510° 000		£210,000		
IR with disposal cradit		•		7		

APPENDIX D

NCEL RDF COST MODEL: MULTIPLAN® FORMULA LISTINGS

RDFMDLIN

		1	2	3
1	1	-	"PORT HUENEME ALGORITHM. REVISED AND SIMPLIFIED 12	
			/01/84"	
2	2			"MODIFIED JANUARY 1 986"
3	3		"Facility:"	
4	4			
=	5		"SUMMER STEAM DEMANDS:"	
	6		Source Steam Demando.	"AVERAGE HOURLY BTU
Ū	•			INPUT IN THESE MAT RICES"
	7			
	8			"MON-FRI" "SAT"
	9 10			"SUN"
	11		"WINTER STEAM DEMANDS:"	5014
	12		WINTER STEMM SEMMOST	"AVERAGE HOURLY BTU STEAM"
13	13			
14	14			"MON-FRI"
	15			"SAT"
	16		WARRANG AND BALL GMEAN DE	"SUN"
17	17		"SPRING AND FALL STEAM DE MANDS:"	
18	18			"AVERAGE HOURLY BTU
19	19			
	20			"MON-FRI"
21				"SAT"
	22			"SUN"
	23		HOUSENE BOTTER OPERATING	
	24		"CURRENT BOILER OPERATING CONDITIONS"	
	25		"Boiler availability"	
	26		"Excess air required at M CR"	
27	27		"Total heat release at MC R"	
28	28		"Fuel temperature at boil er boundary"	
29	29		"Radiation losses"	
	30		"Carbon losses"	
31	31		"Air temperature at FD or airheater inlet"	
32	32		"Preheated combustion air temperature"	
33	33		"Ash temperature at boile r boundary"	
34	34		"Gas temperature at boile r/economizer exit"	
35	35		"Particulate emissions ra	
-	•		te"	

		1	2	3
36	36		"Applicable particulate e	
			missions standard"	
37	37		"Ash handling system capa	
			city"	
38	38		"CONVENTIONAL FUEL CHARAC	
			TERISTICS: AS RECEIVED"	
	39		"Moisture"	
	40		"Ash"	
	41		"Hydrogen"	
	42		"Higher heating value"	
	43		"Specific heat"	
44	44		"RDF CHARACTERISTICS : AS RECEIVED"	
	45		"Moisture"	
_	46		"Ash"	
	47		"Hydrogen"	
48	48		"Moisture-ash-free heatin	
_			g value"	
	49		"Bulk density"	
50	50		"Size (passes through scr	
5 1	51		een opening)" "Cofire ratio"	"(based on heating
51	51		Collie ratio	value)"
52	52		"Days of storage desired"	value,
	53		"Length of mechanical tra	
	55		nsfer conveyor"	
54	54		"Fuel temperature at boil	
			er boundary"	
55	5 5		"ECONOMIC FACTORS"	
56	56		"Financial life of projec	
			t"	
57	57		"Discount factor"	
58	58		"Cost of electricity"	
	59		"Ash disposal cost"	
60	60		"Operator wage rate, unbu	
			rdened"	
61	61		"Burdening rate (a multip	
			lier)"	
62	62		"Annual quantity of MSW g	
			enerated on base"	
63	63		"MSW disposal cost: tippi	
			ng fee"	
64	64		Crans	
~=	<i>c</i> =		portation"	
63	65		"Conventional fuel cost, delivered"	
66	66		"RDF cost, delivered"	
	67		"IF THE FOLLOWING STATEME	
٠,	٠,		NTS ARE TRUE, ENTER 1 :"	
68	68		the section to the section of the se	
	69		"BOILER HAS SOOT BLOWERS	
			FOR THE CONVECTIVE"	

		1 2
70	70	"BOILER HAS SOOT BLOWERS
		FOR THE ECONOMIZER"
71	71	"BOILER HAS AN ECONOMIZER
72	72	"ECONOMIZER IF PRESENT IS BARE TUBE"
73	73	"Boiler has a history of slagging"
74	74	"ADEQUATE BACKUP CAPABILI TY EXISTS"
75	75	"BOILER IS EQUIPPED WITH
		A BAGHOUSE"
76	76	"BOILER IS EQUIPPED WITH
		AN ESP"
//	77	"BOILER IS EQUPIIED WITH A VENTURI SCRUBBER"
78	78	"BOILER HAS MULTICLONES O
, ,	, 0	R CYCLONES"
79	79	"BOILER WAS ORIGINALLY DE
		SIGNED FOR COAL"
80	80	"BOILER HAS MOVING OR DUM
		PING GRATE"
81	81	"BOILER HAS AN ASH HANDLI
82	82	NG SYSTEM" "THE CF ASSUMED COFIRED I
-	02	S OIL"
83	83	"THE CF ASSUMED COFIRED I
		S COAL"
84	84	"THE CF ASSUMED COFIRED I
		S GAS"
82	85	"THE FURNACE IS PC OR CYC
86	86	LONE TYPE" "The boiler has an ID fan
-	00	" " " " " " " " " " " " " " " " " " "
87	87	"ALTERNATIVE SOLID FUEL I
		S NOT RDF BUT COAL"
88	88	"ALTERNATIVE SOLID FUEL I
90	89	S RDF-3"
07	87	"ALTERNATIVE SOLID FUEL I S RDF-5 (d-RDF)"
90	90	5 KDF -5 (d-KDF)
91		
92	92	
93	93	"ADDITIONAL INPUT REGARDI
		NG ORIGINAL BOILER DESIGN
0.4	04	Follows:"
94 95		"FRACTIONAL MOISTURE OF A
ب و	93	S RCVD DESIGN CF"
96	96	"FRACTIONAL ASH CONTENT O
	-	F AS RCVD DCF"
97	97	"FRACTIONAL EXCESS AIR RE
		QD FOR DCF AT MCR"

		1	2
98	98		"TOTAL FUEL VALUE TO BOIL ER AT MCR"
99	99		" NAMEPLATE WITH DCF"
	100		"HIGHER HEATING VALUE OF
			DCF"
101	101		"FRACTION OF HHVCFD LOST DUE TO CARBON LOSS"
102	102		"DESIGN FUEL SPECIFIC HEAT"
103	103		"TEMPERATURE OF DCF AT BO ILER BOUNDARY"
104	104		"HYDROGEN MASS FRACTION O F AS-RCVD CFD"
105	105		"RADIATION LOSSES AS A FR ACTION OF DTOTHHVCF"
106	106		
107	107		
108	108		
109	109		
110	110		
111	111		
112	112		
113	113		
114	114		"IF THE ALTERNATIVE SOLID FUEL BEING FIRED IS WOOD (HOG FUEL OR"
115	115		"WHOLE TREE CHIPS) THE RD F EXPRESSIONS ARE REASONA BLE. SIMPLY"
116	116		"SUBSTITUTE THE WOOD MOIS TURE, ASH, PARTICLE SIZE, AND BULK"
117	117		"DENSITY INTO THE RDF VAR IABLES. HOWEVER, IF THE A SF BEING FIRED"
118	118		"IS COAL, SUBSTITUTE THE COAL HHV FOR RDF HHV (HHV RDF), AND "
119	119		"ALSO ENTER OTHER SOLIDS CHARACTERISTICS APPROPRIA TELY."

1	4	5	6
1			
2			
3			
	"INPUTS(LINES 3 TO 105):"		
5 6			
7 8		"SHIFT 1" 5000000	"SHIFT 2" 45000000
9		4000000	4000000
10 11		40000000	40000000
12			
13		"SHIFT 1"	"SHIFT 2"
14		15000000	14000000
15		13000000 13000000	130000000 130000000
16 17		13000000	13000000
18			
19 20		"SHIFT 1" 100000000	"SHIFT 2" 92500000
21		85000000	8500000
22		85000000	8500000
23 24			"INPUT IN THIS COLU
			HN"
25 26			0.98 0.3
27			172840000
28			70
29			0.0041
30 31			0.0405 70
32			70
33			450
34			340
35			0.02

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	4	5		6
36	4	•	0.11	
37			15	
38				
39			0.12 0.07	
40 41			0.04	
42			10500	
43			0.3	
44				
45			0.2	
46			0.1	
47			0.07 9000	
48			3000	
49			35	
50			1.5	
51			0.4	
52			1	
52 53			0	
30			70	
54			70	
55			05	
56			25	
57			9.54	
58			0.0227	
59			16	
60			13.68	
61			1.305	
62			42000	
63			10	
64			6	
65			78	
66			2	
67				
68 69			1	
ロブ				

を含める 日本では なかかから は重要の カイ・イン ない 動物の かいしかい (A man の) (A の) ない は man (A の) (A の)

	4	5	6
70	4	3	1
71			1
72			1
73			0
74			1
75			1
76			o
77			1
78			0
79			1
80			1
81			1
82			٥
83			1
84			0
85			٥
86			1
87			٥
98			٥
89			1
90			
91 92			
93			
94			0.1548
95			
96			0.0913
97			0.3

	4	5	•
98			
99 100			172840000 10290
101			0.0405
102			0.3
103			80
104			0.0405
105			0.0041
106			
107			
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113			
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116			
117			
118			

	7	8	9	
1	·		R99C6	
2			R100C6	
4				
3			R95C6	
4			R96C6	
			R97C6	
5 6			R101C6	
0				
	"SHIFT 3"		R102C6	
	45000000		R103C6 R104C6	
	40000000		R105C6	
	4000000		R27C6	
11 12			+R42C6	
12				
13	"SHIFT 3"		+R39C6	
14	135000000		+R40C6	
15	13000000		+R26C6	
16	13000000		+R30C6	
17			+R43C6	
18			+R28C6	
10				
19	"SHIFT 3"		+R41C6	
20	90000000		+R29C6	
21	85000000		+R51C6	
	85000000		+R47C6	
23			+R45C6	
24			+R46C6	
25	"Fraction"		+R50C6	
26			+R49C6	
			24.505	
27	"Btu/hr"		+R66C6	
28	"Deg F"		+R54C6	
	"Fraction"		+R34C6	
	"Fraction"		+R31C6	
31	"Deg F"		+R32C6	
32	"Deg F"		+R33C6	
33	"Deg F"		+R58C6	
	"Deg F"		+R65C6/2000)
J-1	Lag .			
35	"lb/mmBtu"		+R59C6	

	_		•	0
36	7 "lb/mmBtu"		8	9 +R52C6
				, DE 200
37	"ТРН"			+R53C6
38				+R56C6
39	"Fraction"			+R57C6
40	"Fraction"			+R60C6
	"Fraction"			+R25C6
	"Btu/lb"			+R36C6
	"Btu/lb/deg	E.		R62C6
	Btu/1D/deg	r		+R61C6
44				*K01C0
45	"Fraction"			+R63C6
46	"Fraction"			+R48C6
47	"Fraction"			R69C6
	"Btu/lb"			R70C6
40	"lb/cf"			R71C6
				R72C6
50	"Inches"			R/206
51	"Fraction"			R73C6
52	"days"			R74C6
	"Miles"			R75C6
00				
54	"Deg F"			R76C6
55				R77C6
	"Years"			R78C6
57				R79C6
58	"\$/kWh"			R80C6
59	"\$/ton"			R81C6
60	"\$/hr"			R82C6
~ 1				R83C6
61				K63C0
62	"Tons/yr"			R84C6
63	"\$/ton"			R85C6
64	"\$/ton"			R86C6
65	"\$/ton"	0.039*2000)	R87C6
66	"\$/ton"			R88C6
67				R89C6
				PPOC6
68				R90C6
69				R8C5

7	8	9
70	-	R8C6
71		R8C7
72		R9C5
73		R9C6
74		R9C7
75		R10C5
76		R10C6
77		R10C7
78		R14C5
79		R14C6
80		R14C7
81		R15C5
82		R15C6
83		R15C7
84		R16C5
85		R16C6
86		R16C7
87		R20C5
88		R20C6
89		R2007
90		R21C5
91		R21C6
92		R21C7
9 3		R22C5
		p2276
94		R22C6 R22C7
95 "Fraction"		
96 "Fraction"		R37C6*2000
97 "Fraction"		+R35C6

- 1 "DTOTHHVCF"
- 2 "HHVCFD"
- 3 "MCFD"
- 4 "ACFD"
- 5 "EACFD"
- 6 "XCLOSD"
- 7 "CPCFD"
- 8 "TCFD"
- 9 "XHCFD"
- 10 "LOSRADD"
- 11 "TOTHHVCF"
- 12 "HHVCF"
- 13 "MCF"
- 14 "ACF"
- 15 "EACF"
- 16 "XCLOS"
- 17 "CPCF"
- 18 "TCF"

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- 19 "XHCF"
- 20 "LOSRAD"
- 21 "X"
- 22 "XHRDF"
- 23 "MRDF"
- 24 "ARDF"
- 25 "DP"
- 26 "RHDRDF"
- 27 "RDFCST"
- 28 "TRDF"
- 29 "TSTK"
- 30 "TAIR"
- 31 "TCAPH"
- 32 "TASH"
- 33 "ELCOST"
- 34 "CFCOST"
- 35 "DISPCOST"

36 "STORTIME"

37 "MILES"

38 "LIFE"

39 "INTEREST"

40 "WAGE"

41 "AVAILCF"

42 "TSPSTD"

43 "MSWPROD"

44 "WGBURDON"

45 "DISPMSW"

46 "MAF HHV"

CONTRACT TO SERVING PARAMENT IN SERVING TO SERVING TO SERVING THE SERVING TO SERVING THE S

96 "ash capacity"

97 "emissions"

MORROLL SASSESS SASSESS RESISTANCE SASSASSES FOR THE PARTY OF THE PART



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1 [rdfmdlin xferdata] R24C2*(1-R3C1-R4C1) R53C2*R26C3
2 [rdfmdlin xferdata] R24C2*R4C1
                                            R5402*R2603
3 [rdfmdlin xferdata] R24C2*R3C1
                                            R5502*R2603
 4 [rdfmdlin xferdata] R2602
                                            R56C2*R26C3
 5 [rdfmdlin xferdata] SUM(R1:4C2)
                                            R57C2*R26C3
 6 [rdfmdlin xferdata] R1C2*R7C1*(R8C1-32) SUM(R1:5C3)
 7 [rdfmdlin xferdata] R1C1
                                            R5902*R2603
 8 [rdfmdlin xferdata] R24C2*R3C1*(R8C1-32 R60C2*R26C3
   [rdfmdlin xferdata] R4C2*0.24*(R3OC1~32 R61C2*R26C3
10 [rdfmdlin xferdata] SUM(R6:9C2)
                                            R6202*R2603
11 [rdfmdlin xferdata] R2C2
                                            R6302*R2603
12 [rdfmdlin xferdata] R5C2-R11C2-R13C2-R1 R64C2*R26C3
                        4C2
13 Endfmdlin xferdatal R24C2*(R3C1+(R9C1*9 SUM(R7:12C3)
14 [rdfmdlin xferdata] IF(R6C1=0,R103C1*R1 R66C2*R26C3
                        C1/14500, R6C1*R1C1/
                        14500)
15 [rdfmdlin xferdata] SUM(R11:14C2)
                                            R6C3-R14C3-R16C3-R1
                                             703
16 [rdfmdlin xferdata] R11C2*0.2*(R32C1-32 R68C2*R26C3
17 [rdfmdlin xferdata] R12C2*0.25*(R29C1-3 ((1-R21C1)*R11C1*R2
                        2)
                                             5C3*R2BC3/R113C2+R2
                                             1C1*R11C1*R25C3*R29
                                             C3/R113C2)/14500
18 [rdfmdlin xferdata] R13C2*(1128+(0.455* SUM(R14:17C3)
                        (R29C1-160)))
19 [rdfmdlin xferdata] R14C2*14500
                                             R71C2*R26C3
                                            R15C3*0.25*(R29C1-3
20 [rdfmdlin xferdata] (R10C1+0.016)*R1C1
                                            2)
21 [rdfmdlin xferdata] SUM(R16:20C2)
                                             R73C2*R26C3
22 [rdfmdlin xferdata] R10C2-R21C2
                                             R17C3*14500
23 [rdfmdlin xferdata] R22C2/R7C2
                                             R7502*R2603
24 [rdfmdlin xferdata] R1C1/R2C1
                                             SUM(R19:23C3)
25 [rdfmdlin xferdata] R12C2/1.2792+R13C2/ 1.105*R25C2
                        0.78
26 [rdfmdlin xferdata] 0.00073*R1C1*(1+R5C R25C3/R113C2
                        1)
27 [rdfmdlin xferdata] R50C2*(1-R13C1-R14C ((R1C1-(R25C3/R113C
                        1)
                                             2) *R11C1) /R1C1) *100
28 [rdfmdlin xferdata] R50C2*R14C1
                                             IF (AND (RE3C1=0, R56C
                                             1=0),0.02*(1.105)^2
                                             ,0)
29 [rdfmdlin xferdata] R50C2*R13C1
                                             IF(R2703) = 0, ((R2501)
                                             /0.75) ^0.41*0.05+(R
                                             2703/20) ^2.58*0.01)
                                             *(1.105)^2,((R25C1/
                                             0.75) \land 0.41 * 0.05) * (1
                                             .105) ^2)
30 [rdfmdlin xferdata] R52C2
                                             R13C3-R24C3
```

```
2
                                                      .3
31 [rdfmdlin xferdata] SUM(R27:30C2)
                                            R30C3/(R8C3+R10C3)
32 [rdfmdlin xferdata] R27C2*R17C1*(R18C1- R53C2*R57C3
                        32)
33 [rdfmdlin xferdata] R11C1
                                            R54C2*R57C3
34 [rdfmdlin xferdata] R50C2*R13C1*(R18C1- R55C2*R57C3
35 [rdfmdlin xferdata] R30C2*0.24*(R30C1-3 R56C2*R57C3
                       2)
36 [rdfmdlin xferdata] SUM(R32:35C2)
                                            R57C2*R57C3
37 [rdfmdlin xferdata] R28C2
                                            SUM(R32:36C3)
38 [rdfmdlin xferdata] R31C2-R37C2-R39C2-R R59C2*R57C3
                        40C2
39 [rdfmdlin xferdata] R50C2*(R13C1+(R19C1 R60C2*R57C3
                        *9))
40 [rdfmdlin xferdata] IF(R16C1=0,R103C1*R R61C2*R57C3
                        11C1/14500, R16C1*R1
                       C1/14500)
41 [rdfmdlin xferdata] SUM(R37:40C2)
                                            R62C2*R57C3
42 [rdfmdlin xferdata] R37C2*0.2*(R32C1-32 R63C2*R57C3
43 [rdfmdlin xferdata] R38C2*0.25*(R29C1-3 R64C2*R57C3
44 [rdfmdlin xferdata] R39C2*(1128+(0.455* SUM(R38:43C3)
                        (R29C1-160)))
45 [rdfmdlin xferdata] R40C2*14500
                                            R66C2*R57C3
46 [rdfmdlin xferdata] (R20C1+0.016)*R11C1 R37C3-R45C3-R47C3-R
                                            48C3
47 [rdfmdlin xferdata] SUM(R42:46C2)
                                            R68C2*R57C3
48 [rdfmdlin xferdata] R36C2-R47C2
                                            (R57C3*(1-R21C1)*R1
                                            C1*R58C3+R57C3*R21C
                                            1*R11C1*R59C3)/1450
49 [rdfmdlin xferdata] R48C2/R33C2
                                            SUM (R45:48C3)
50 [rdfmdlin xferdata] R11C1/R12C1
                                            R71C2*R57C3
51 [rdfmdlin xferdata] R38C2/1.2792+R39C2/ R46C3*0.25*(R29C1-3
                        0.78
                                            2)
52 [rdfmdlin xferdata] 0.00073*R11C1*(1+R1 R73C2*R57C3
                        5C1)
53 [rdfmdlin xferdata] R78C2*(1-R13C1-R14C R48C3*14500
                        1)
54 [rdfmdlin xferdata] R77C2*(1-R23C1-R24C R75C2*R57C3
                        1)
55 [rdfmdlin xferdata] R78C2*R14C1+R77C2*R SUM(R50:54C3)
                        24C1
56 [rdfmdlin xferdata] R78C2*R13C1+R77C2*R R113C2*R57C3
                        2301
57 [rdfmdlin xferdata] R11C1*R21C1*0.00073 IF(R67C1=1, 0.25, 0.6
                        *(1+R80C2)+R11C1*(1 )*R1C1/R11C1
                        -R21C1) *0.00073*(1+
                        R15C1)
58 [rdfmdlin xferdata] SUM(R53:57C2)
```

R103C1

		1	2	3
59	[rdfmdlin	xferdatal	R53C2*R17C1*(R18C1-	
			32)	.05+(2)^2.58*0.01
	[rdfmdlin		(1-R21C1) *R11C1	R44C3-R55C3
61	Crdfmdlin	xferdata]	R54C2*0.6*(R28C1-32	R60C3/(R39C3+R41C3)
)	
62	Erdfmdlin	xferdata]	R21C1*R11C1	(IF (AND (R69C1 (=R30C
				3, R69C1) = R60C3), R69
				C1,0)+IF(R69C1)R30C
	P		07000".04704".404004	3, R30C3, 0))
63	tro molin	rterdataj	R78C2*R13C1*(R18C1-	(IF (AND (R70C1 (=R30C
			32)+R77C2*R23C1*(R2 8C1-32)	C1, 0) + IF (R70C1) R30C
			601-327	3, R30C3, 0))
64	[rdfmdlin	v fandatal	R57C2*0.24*(R30C1-3	(IF (AND (R71C1 (=R30C
04	r, d,	VIELOGEAT	2)	3, R71C1) = R60C3), R71
			_,	C1,0)+IF(R71C1)R30C
				3, R30C3, 0))
65	Irdfmdlin	xferdata]	SUM(R59:64C2)	(IF(AND(R72C1(=R30C
				3, R72C1) = R60C3), R72
				C1, 0) + IF (R72C1) R30C
				3, R30C3, 0))
66	Erdfmdlin	xferdatal	R55C2	(IF (AND (R73C1 (=R30C
				3, R73C1) = R60C3), R73
				C1, 0) + IF (R73C1) R30C
				3, R30C3, 0))
67	[rdfmdlin	xferdata]	R58C2-R66C2-R68C2-R	
			6908	3, R74C1) = R60C3), R74
				C1, 0) + IF (R74C1) R30C
<i>-</i>	r		G= ((B1 G01 = B7 G00) + B0	3, R30C3, O))
68	[rdfmdlin	xreroataj	9*((R19C1*R78C2)+R2	(IF (AND (R75C1 (=R30C
			2C1*R77C2*(1-R23C1- R24C1))+R23C1*R77C2	3, R75C1)=R60C3), R75 C1, 0)+IF(R75C1)R30C
			+R13C1*R78C2	3, R30C3, 0))
69	[rdfmdlin	xferdatal	(1-R21C1)*R40C2+0.0	(IF (AND (R76C1 (=R30C
			5*R62C2/14500	3, R76C1) = R60C3), R76
				C1,0)+IF(R76C1)R30C
				3, R30C3, O))
70	Indfmdlin	xferdata]	SUM (R66:69C2)	(IF (AND (R77C1 (=R30C
				3, R77C1) = R60C3), R77
				C1,0)+IF(R77C1)R30C
				3, R30C3, 0))
71	[rdfmdlin	xferdata]	R66C2*0.2*(R32C1-32	(IF(AND(R78C1(=R30C
)	3, R78C1) = R60C3), R78
				C1, 0) + IF (R78C1) R30C
70.	F		PERONA OF	3, R30C3, 0))
/2	[rdfmdlin	xrerdata]	R67C2*0.25*(R29C1-3	
			2)	3, R79C1) = R60C3), R79
				C1, 0) + IF (R79C1) R30C 3, R30C3, 0))
7.3	[rdfmdlin	xferdatal	R68C2*(1128+(0.455*	(IF (AND (RBOC1 (=R30C
	2. 2. mo11/		(R29C1-160)))	3, R8OC1) =R6OC3), R8O
				C1, 0) + IF (R80C1) R30C
				3, R30C3, ())

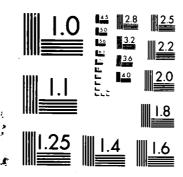
		1	2	3
74	Endfmdlin	xferdata]	R69C2*14500	(IF(AND/R81C1(=R30C 3,R81C1)=R60C3),R81 C1,0)+IF(R81C1)R30C
75	Erdfmdlin	xferdata]	(R20C1+0.016)*R11C1	3, R30C3, 0)) (IF(AND(R82C1(=R30C3, R82C1)=R60C3), R82C1)=R60C3), R82C1, 0)+IF(R82C1)R30C
76	Erdfmdlin	xferdata]	SUM(R71:75C2)	3, R30C3, 0)) (IF(AND(R83C1 (=R30C 3, R83C1) = R60C3), R83 C1, 0) + IF(R83C1) R30C
77	Crdfmdlin	xferdata]	R21C1*R11C1/R79C2	3, R30C3, 0)) (IF(AND(R84C1(=R30C 3, R84C1)=R60C3), R84 C1, 0)+IF(R84C1)R30C
78	Crdfmdlin	xferdata]	(1-R21C1)*R11C1/R12 C1	3, R85C1)=R60C3), R85 C1, 0)+IF(R85C1)R30C
79	Erdfmdlin	xferdata]	R46C1*(1-R23C1-R24C 1)	3, R3OC3, O)) (IF (AND (R86C1 (=R3OC 3, R86C1) = R6OC3), R86C1, O) + IF (R86C1) R3OC 3, R3OC3, O))
80	Endfmdlin	xferdata]	IF (R67C1=1, R15C1, (R 15C1+R23C1+0.5*R24C 1-R13C1-0.5*R14C1+(R25C1/0.75)^0.67*0. 05))	(IF (AND (R87C1 (=R30C 3, R87C1) =R60C3), R87 C1, 0) +IF (R87C1) R30C 3, R30C3, 0))
81	(rdfmdlin	xferdata]	R65C2-R76C2	(IF(AND(R88C1(=R30C 3,R88C1)=R60C3),R88 C1,O)+IF(R88C1)R30C
82	[rdfmdlin	xferdata]	R81C2/R11C1	3,R30C3,O)) (IF(AND(R89C1(=R30C 3,R89C1)=R60C3),R89 C1,O)+IF(R89C1)R30C
83	Erdfmdlin	xferdata]	R67C2/1.2792+R68C2/ 0.78	3,R30C3,O)) (IF(AND(R90C1(=R30C 3,R90C1)=R60C3),R90 C1,O)+IF(R90C1)R30C
84	Erdfmdlin	xferdata]	((R1C1-R11C1)/R1C1) *100	3, R30C3, 0)) (IF(AND(R91C1(=R30C3, R91C1)=R60C3), R91C1) = R60C3), R91C1, 0) + IF(R91C1) R30C
85	Erdfmdlin	xferdata]	R107C1	3,R30C3,O)) (IF(AND(R92C1(=R30C3,R92C1)=R60C3),R92C1)=R60C3),R92C1,O)+IF(R92C1)R30C
86	Endfmdlin	xferdata]	R112C1	3,R30C3,O)) (IF(AND(R93C1(=R30C3,R93C1)=R60C3),R93C1)+IF(R93C1)R30C3,R30C3,O))

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2
87 [rdfmdlin xferdata] R53C2
                                               (IF (AND (R94C1 (=R30C
                                              3, R94C1 > = R60C3 > R94
                                              C1,0)+IF(R94C1)R30C
                                               3, R30C3, 0))
88 [rdfmdlin xferdata] R54C2
                                               (IF (AND (R95C1 (=R30C
                                               3, R95C1 = R60C3 , R95
                                              C1, 0) + IF (R95C1) R30C
                                               3, R30C3, 0))
                                               (520*SUM(R62:64C3, R
89 [rdfmdlin xferdata] R55C2
                                               71:73C3, R80:82C3))+
                                               (104*SUM(R65:70C3,R
                                               74:79C3, R83:88C3))
90 [rdfmdlin xferdata] R56C2
                                               R89C3/8760
                                               SUM(R96:100C3)
91 [rdfmdlin xferdata] R57C2
92 [rdfmdlin xferdata] R58C2
                                               IF (R91C3=0, 0, R89C3/
                                               R91C3)
93 [rdfmdlin xferdata] R59C2
94 [rdfmdlin xferdata] R60C2
95 [rdfmdlin xferdata] R61C2
96 [rdfmdlin xferdata] R62C2
                                               (IF(R62C3)0,520,0))
                                               +(IF(R63C3)0,520,0)
                                               )+(IF(R64C3)0,520,0
                                               ))+(IF(R65C3)0,104,
                                               0))+(IF(R66C3)0,104
                                               ,0))+(IF(R67C3)0,10
                                               4,0))
97 [rdfmdlin xferdata] R63C2
                                               (IF(R68C3)0,104,0))
                                               +(IF(R69C3)0,104,6/
                                               )+(IF(R70C3)0,104,0
                                               ))+(IF(R71C3)0,520,
                                               0))+(IF(R72C3)0,520
                                               , 0))+(IF(R73C3)0,52
                                               0,0))
98 [rdfmdlin xferdata] R64C2
                                               (IF(R74C3)0,104,0))
                                               +(IF(R75C3)0,104,0)
                                               )+(IF(R76C3)0,104,0
                                               ))+(IF(R77C3)0,104,
                                               0))+(IF(R78C3)0,104)
                                               ,0))+(IF(R7903)0,10
                                               4,0))
99
                         R65C2
                                               (IF (R80C3) 0, 1040, 0)
                                               )+(IF(R81C3)0,1040,
                                               0))+(IF(R82C3)0,104
                                               0,0))+(IF(R83C3)0,2
                                               08,0))+(IF(R84C3)0,
                                               208, 0))+(IF(R85C3)0
                                               ,208,0))
100 IF (AND (R63C1=1, R56C R66C2
                                               (IF(R86C3)0,208,0))
    1=1), 0.02, 0)
                                               +(IF(R87C3)0,208,0)
                                               )+(IF(R88C3)0,208,0
101 IF (AND (R63C1=0, R56C R92C2-R100C2-R102C2 R92C3/R30C4
    1=1), 0.03, 0)
                         -R103C2
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	1	2	3
102	IF (AND (R61C1=1, R56C	R68C2	R92C3/R48C2
	1=0),0.04,0)		
103	SUM(R100:102C1)	(R107C1*R94C2+R112C 1*R96C2)/14500	
104	R83C2/R25C2	SUM(R100:103C2)	R25C4/R25C2
103	IF(R104C1)i,(R104C1)^2,1)	K/1CE	IF (R104C3) 1, (R104C3) ^2, 1)
106		R101C2*0.25*(R29C1-	
	C2(0,R100C1=0.02),2	32)	C4(0,R100C1=0.02),2
107	R103C1*R105C1*R106C	873C2	R103C1*R105C3*R106C
107	1	N/ SCE	3
108	IF (AND (R104C1 (=1, R8	R103C2*14500	IF (AND (R104C3 (=1, R2
	402) = 0, (R2501/0.75		7C4) = 0), (R35C1/0.75)
) ^0.41*0.05+(R84C2/)^0.41*0.05+(R27C4/
	20)^2.58*0.01,0)		20)^2.58*0.01,0)
109	IF (AND (R104C1 (=1, R8	R75C2	IF (AND (R104C3 (#1, R2
	4C2(0),(R25C1/0.75)		7C4(0),(R25C1/0.75)
	^D. 41*0. 05, 0)		^0.41+0.05,0)
110	IF (AND (R104C1) 1, R84	SUM (R105:109C2)	IF (AND (R104C3) 1, R27
	C2) = 0), ((R25C1/0.75)		C4)=0), ((R25C1/0.75)
) ^0.41*0.05+(R84C2/)^0.41*0.05+(R27C4/
	20)^2.58*0.01)*(R10		20)^2.58*0.01)*(R10
	401) ^2, 0)	DDDD0 D440D0	403) ^2, 0)
111	IF (AND (R104C1) 1, R84	K33C5-K110C5	IF (AND (R104C3) 1, R27
	C2(0), (R25C1/0.75)^ 0.41*0.05*(R104C1)^		C4(0), (R25C1/0,75)^
	2,0)		0. 41*0. 05*(R104C3)^
110	SUM(R108:111C1)	R111C2/R11C1	2,0) SUM(R108:111C3)
113	SUPPLICATION 1	R101C2/1.2792+R102C	aum (RIVOIIIIUS)
113		2/0.78	
		C/V. /D	

- 1 R53C2*R26C4
- 2 R54C2*R26C4
- 3 R55C2*R26C4
- 4 R56C2*R26C4
- 5 R57C2*R26C4
- 6 SUM(R1:5C4)
- 7 R59C2*R26C4 8 R60C2*R26C4
- 9 R61C2*R26C4
- 10 R62C2*R26C4
- 11 R63C2*R26C4
- 12 R64C2*R26C4
- 13 SUM(R7:1204)
- 14 R66C2*R26C4
- 15 R6C4-R14C4-R16C4-R1 7C4
- 16 R68C2*R26C4
- 17 (R10C4*R29C4+R8C4*R 28C4)/14500
- 18 SUM(R14:17C4)
- 19 R71C2*R26C4
- 20 R15C4*0.25*(R29C1-3
- 21 R73C2*R26C4
- 22 R17C4*14500
- 23 R75C2*R26C4
- 24 SUM(R19:23C4)
- 25 R113C2*R26C4
- 26 R92C3/R111C2
- 27 ((R1C1-R11C1*R26C4) /R1C1)*100
- 28 R107C3
- 29 R112C3
- 30 R13C4-R24C4

RDF (REFUSE-DERIVED FUEL) CO-FIRING COST/BENEFIT RNALYSIS USING THE NCEL R.. (U) SYSTECH CORP XENIA OH H BELENCAN ET AL. AUG 86 NCEL-CR-86.012-VOL-2 N00123-83-D-0149 F/G 21/4 2/3 AD-A173 981 UNCLASSIFIED NL



PROPERTY INDICATED WINDOWS SERVING SOLVENSES

MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

- 31 R1C4*R101C3
- 32 R2C4*R101C3
- 33 R3C4*R101C3
- 34 R4C4*R101C3
- 35 R5C4*R101C3
- 36 R6C4*R101C3
- 37 R7C4*R101C3
- 38 R8C4*R101C3
- 39 R9C4*R101C3
- 40 R10C4*R101C3
- 41 R11C4*R101C3
- 42 R12C4*R101C3
- 43 R13C4*R101C3
- 44 R14C4*R101C3
- 45 R15C4*R101C3
- 46 R16C4*R101C3
- 47 R17C4*R101C3
- 48 R18C4*R101C3
- 49 R19C4*R101C3
- 50 R20C4*R101C3
- 51 R21C4*R101C3
- 52 R22C4*R101C3
- 53 R23C4*R101C3
- 54 R24C4*R101C3
- 55 R25C4*R101C3
- 56 R43C4-R42C4+R35C4*0 .24*R31C1
- 57 (R56C4-(1160*R46C4) +0.445*160*R46C4-R5
 - 2C4-R53C4)/(0.2*R44 C4+0.25*R45C4+0.445
- *R46C4)
- 58 R43C4-R54C4

- 59 R58C4/(R38C4+R40C4)
- 60 R27C2*R102C3
- 61 R28C2*R102C3
- 62 R29C2*R102C3
- 63 R30C2*R102C3
- 64 R31C2*R102C3
- 65 R32C2*R102C3
- 66 R33C2*R102C3
- 67 R34C2*R102C3
- 68 R35C2*R102C3
- 69 R36C2*R102C3
- 70 R37C2*R102C3
- 71 R38C2*R102C3
- 72 R39C2*R102C3
- 73 R40C2*R102C3

74 R41C2*R102C3 75 R42C2*R102C3 76 R43C2*R102C3 77 R44C2*R102C3 78 R4502*R10203 79 R46C2*R102C3 80 R4702*R10203 81 R51C2*R102C3 82 R69C4-R80C4 83 R82C4/R66C4 84 85

105

WORK 2

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30 [work1 xferdat3]	<pre>[work1 xferdat4]</pre>
31 [work1 xferdat3]	[work1 xferdat4]
32 [work1 xferdat3]	[work1 xferdat4]
33 (work) xferdat3)	[work1 xferdat4]
34 [workl xferdat3]	<pre>[work1 xferdat4]</pre>
	[work1 xferdat4]
R5 [work] xferdat3)	(MOLKI XIGIGACA)

でいたのがMEDSカインとのとMEDSからなるなるがMEDSののののものMEDSのいっていましているのがMEDSが必要があるがあるMEDSのいっていませい。

		3		4
36	(work1	xferdat3]	[work1	xferdat4]
37	[work1	xferdat31	[workl	xferdat4]
38		xferdat3]	(work1	xferdat4]
39		xferdat3]	[work1	xferdat4]
40		xferdat31	(work1	xferdat4]
41	[work1	xferdat3]	[work1	xferdat4]
** *	(WOLKI	XI EL GGCSI		
42	(work1	xferdat3]	(work1	xferdat4]
43	[work1	xferdat3]	(work1	xferdat4]
			C	xferdat4]
44	[work1	xferdat3]	lworki	xierdatal
. =-		6 d b 01	fuark1	xferdat4]
45	tworkl	xferdat3]	IWOINI	XIEIGGE
46	f male 1	xferdat3]	(work1	xferdat4]
40	CMOLKI	X161daco1	•	
47	[work1	xferdat31	(work1	xferdat4]
• ′				
48	[work1	xferdat3]	[work1	
49	(work1	xferdat3]	[work1	xferdat4]
50	[work1	xferdat3]	[work1	xferdat4]
51	[work1	xferdat3]	[work1	xferdat4]
52	[work1	xferdat3]	[work1	
53	[work]	xferdat3]	[work1	xferdat4]
			r	
54	[work1		[work1	
55	[work1		[work1	
56	[work1	xferdat3]	(work1	xferdat4]
		. 6	[work1	xferdat4]
57	[work1		[work1	
58	[work1	xferdat31	IWOIKI	XIELGGC I
=0	fmle1	xferdat3]	[work1	xferdat4]
59			[work1	
60		_	[work1	
61	[work1		[work1	
62			[work1	
63			[work1	
64		_	[work1	
65			[work1	
66		_	[work1	
67			(work1	
68	(work1	xierdat3)	twotki	ALCIGGET

THE RESERVE OF THE PROPERTY OF

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		3	4
69	[work1	xferdat3]	[work1 xferdat4]
70	[work1	xferdat3]	[work1 xferdat4]
71		xferdat31	[work1 xferdat4]
		xferdat3]	[work1 xferdat4]
		xferdat31	[work1 xferdat4]
		xferdat3]	[work1 xferdat4]
		xferdat31	[work1 xferdat4]
		xferdat31	[work1 xferdat4]
77	[work1	xferdat3]	[work1 xferdat4]
78		xferdat3]	[work1 xferdat4]
79	[work1	xferdat31	<pre>[work1 xferdat4]</pre>
80	[work1	xferdat3]	[work1 xferdat4]
81	[work1	xferdat31	<pre>(work1 xferdat4)</pre>
82	[work1	xferdat3]	<pre>[work1 xferdat4]</pre>
83	[workl	xferdat3]	<pre>[work1 xferdat4]</pre>
84	[work1	xferdat3]	
85	[work1	xferdat31	R26C4*R25C4/R25C2
		xferdat3)	R52C2*R90C3/R48C2/R26C2
		xferdat31	
		xferdat3)	
		xferdat3]	
90		xferdat3]	
91		xferdat31	
92	[workl	xferdat3]	
93			
94			
95			MIN (DCGE DCGE)
96			MIN(R6C5,R2C5) IF(AND(R6OC1=1,R57C1=0),(
97			R96C4/50000000) ^0.263*162
_			307,0)
18			IF(AND(R61C1=1,R63C1=1),(
			R96C4/150000000)^0.263*20
			5850,0)
99			IF (AND (R57C1=1, R6OC1=1, R6
			3C1=1),(R96C4/150000000)^
			0.263*205850,0)
100			IF(AND(R61C1=1,R63C1=0),(
			R96C4/50000000)^0.389*273
			011,0)
101			IF(AND(R57C1=1,R60C1=1,R6
			3C1=0),(R96C4/50000000)^0
			.389*273011,0>

	3	4
102		IF(R25C3>=1.1*R25C2,((R15
		C3+R16C3)/1000*1.3*(R25C3
		/R25C2*R96C4/R2C5)^2)^0.8
		86*606,0)
103		(5/R26C1*R21C1/0.2*R96C4/
		150000000)^0.39*94800
104		IF(R47C1=0,0.01*70*R96C4/
		1000,0)
105		IF(AND(R49C1=1,R48C1=0),0
		.01*70*R96C4/1000,0)
106		IF(AND(R49C1=1,R50C1=0),0
		.15*70*R96C4/1000,0)
107		IF(R59C1=0,0.08*70*R96C4/
		1000,0)

SECRETE SANDAND SUBJECT MESTERS ESCREEN SOURCE SANDANDE SUCCESSE SUBJECT SUBJECT SUBJECT SANDAND SUBJECT SANDA

```
1 R58C4
 2 R30C3
 3 K60C3
 4 R31C3
 5 R58C4/(R38C4+R40C4)
6 MAX(R69:95C1)
 7 IF((R48C2-R30C3)/R48C2>=0,(R4
   8C2-R30C3) /R48C2,0)
 8 R38C4+R40C4
 9 R40C4/(R79C2*2000)
10 R38C4/R12C1
11 R44C4+R47C4
12 R47C4/R11C5
13 (R97C1/(1-R21C5))/(R26C5/(R2C
   5/1000000)
14 R26C5*R13C5*(1-R21C5)
15 R14C5*1000000/(R8C3+R10C3)
16 R26C5*R13C5*1000000/(R8C3+R10
   C3)
17 R35C4
.8 R17C5/4.5
19 R45C4+R46C4
20 R25C4*R26C4*(R29C1+460)/1969
21 (1-((IF(R53C1=1,0.01,1))*(IF(
   R54C1=1,0.015,1))*(IF(R55C1=1
   ,0.05,1))*(IF(R56C1=1,0.15,1)
   )))
22 IF(R15C5>R42C1.1.0)
23 0.00052*R33C1*R35C4
24 (R19C5/1000*1.3*R33C1)*(IF(R8
   5C4<=1.(R85C4)^0.5,(R85C4)^2)
25 (2000*R9C5/7619)10.85*R33C1/0
   .055 * 101115 / 8760
26 R17C3+R14C3
27 R28C5+8320+R40C1+R44C1
28 ((R48C2/20000000) \(^\mathbf{0.58}) *((IF
   (R60C1=1,3*(R21C1/0.2)^0.33,0
   ))+(IF(R61C1=1,4*(R21C1/0.5)^
   0.22,0)))
29 R10C5*R34C1
30 R9C5*R27C1
31 R11C5/2000*R35C1
32 R91C3*R34C5
33 ((IF(R51C1=1,0.046,0.036))*R5
   OC5) + ((IF(R51C1=1.1.5.1)) * (IF
   (R85C4>1,R22C2/1000*70*0.015*
   ((R85C4)^3-1)*R11C5/(R14C2*R1
   102).000
34 (IF(R60C1=1,0.8.0))+(IF(AND(R
   61C1=1,R63C1=1),0.76,0))+(IF(
   AND(R61C1=1,R63C1=0),0.72,0))
```

35 R32C5*R1C5

36 (SUM(R23:25C5)) *R32C5 37 R29C5*R32C5 38 R30C5*R32C5 39 R31C5*R32C5 40 IF(R57C4<2500,1,0) 41 R16C5*(IF(R22C5=1,1-(IF(R17C3 /(R17C3+R14C3)>0.21,0.985,0.9 9)),1)) 42 1F(R67C1=1,0.25,1)*((5/R26C1* R96C4*R9C5/R1C5*R36C1*24/40)^ 0.39*672000)43 IF(R37C1<=0.0189,0,(5/R26C1*R 21C1/0.1*(R96C4/150000000))^0 ,274*R37C1/0.25*1125000) 44 IF(AND(R37C1<=0.0189,R37C1=0) .0.(5/R26C1*R21C1/0.2*(R96C4/ 100000000)) ^0.508*64923) 45 (IF(R66C1=1,1,0.3))*((R21C1/0 .2*R96C4/100000000)^0.368*259 691) 46 IF(AND(R59C1=1,R26C5<=(1.25*R 96C1)).0.10)*(R96C4/100000000 *R21C1/0.2*R26C5/R9C5/2000)^0 .261*32461 47 IF(R15C5>R42C1,((IF(R17C3/(R1 4C3+R17C3)>0.21.1.25.1))*(782 20+3.747*R25C3*(R29C1+460)/19 60*R96C4/R2C5)),0) 48 SUM(R97:101C4) 49 SUM(R42:48C5) 50 R49C5*1.32 51 R39C1 52 53 R39C5+R38C5+R37C5+R36C5+R33C5 +R27C5+R58C5 54 55 R54C5*1000000/R35C5 56 (R98C5-R57C5) *R39C1)/(R50C5/ (R35C5/1000000)) 57 R53C5*1000000/R35C5 58 IF(R65C1=1.R32C5*R9C5*14*R33C 1+0.165*R32C5*R9C5.0) 50 R3805/R2701 50 R82C4 61 R48C2 B1 F4902 5/3 R8204/R6604 54 R6C5 65 P6604 56 R6604/R1201

67 R70C4+R73C4 68 R73C4/R67C5 ቀኔ ያለያያለፈቀው ያለ ምርምን ምርምን እና ኢምፍሮችን ችላቸው የሚያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እንዲያለም እ

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69 IF(R51C2/R25C2<=2,(R51C2/R25C
   2)^1.44*0.368.1)
70 R82C5*R69C5*(1-R77C5)
71 R70C5*1000000/(R36C2)
72 R82C5*R69C5*1000000/(R36C2)
73 R63C4
74 R73C5/4.5
75 R71C4+R72C4
76 R90C3*(R51C2/R48C2)*(R29C1+46
   0)/1960
77 R21C5
78 IF(R71C5>R42C1,1,0)
79 0.00052*R33C1*R63C4
80 (IF(R64C1=1,1,0))*(R57C5/1000
   *1.3*R33C1)*(IF(R86C4<=1,(R86
   C4)^0.5.(R86C4)^2))
0 18
82 R40C2+R37C2
83 R84C5*8320*R40C1*R44C1
84 ((R48C2/200000000)^0.58)*((IF
   (R60C1=1,1,0))+(IF(R61C1=1,2.
   75.0)))
85 R66C5*R34C1
86 R67C5/2000*R35C1
87 R91C3*R88C5
88 IF(R41C1=0,(IF(R60C1=1,0.95,0
   ))+(IF(AND(R61C1=1,R63C1=1),0
   .903,0))+(IF(AND(R61C1=1,R63C
   1=0),0.855,0)),R41C1)
89 R87C5*R6OC5
90 (SUM(R79:81C5))*R87C5
91 R85C5*R87C5
92 R86C5*R87C5
93 R43C1*R45C1
94 R51C5
95 R92C5+R91C5+R90C5+R83C5
96 R95C5
97 R9605+10000007R8905
```

98 R95C5+1000000/R89C5

99 (R45C1)*(R43C1/2) "avoided disposal cost"

100 (R9805-R10205)*R3901/(R5005/("sir w/disposal credit" R3505/1000000))

101 R53C5-R99C5 "O&M w/disposal credit"

5 102 R101C5*1000000/R35C5	6 "O&M/mmBtu w/disposal cre dit"
103	
104	
105	
106	
107	

out 1

3 "THE INFORMATION ON 1 115 LINES 17-105 REGAR D THE ORIGINAL" 2 R[-1]C+ "BOILER DESIGN AND THE FUEL FOR WHICH THE" 3 R[-1]C+ "BOILER WAS DESIGNE D. DCF MEANS DESIGN CONVENTIONAL FUEL" 4 R[-1]C+ 5 R[-1]C+ "THE INFORMATION ON LINES 151-172 REGA RDS THE CONVENTIONA L., 6 R[-1]C+ "FUEL CURRENTLY BEI NG UTILIZED IN THE BOILER. THE DESIGN 7 R[-1]C+ "AND CURRENT FUELS ARE NOT NECESSARILY THE SAME. NEITHER ARE" 8 R[-1]C+ "THE AMOUNT OF FUEL HEAT VALUE ORIGINA LLY INPUT (NAMEPLAT E AND" 9 R[-1]C+ "DTOTHHVCF) AND THE MAXIMUM AMOUNT OF FUEL HEAT VALUE CUR RENTLY" 10 R[-1]C+ "INPUT AT 100% MCR (TOTHHVCF)." 11 R[-1]C+ 12 R[-1]C+ 13 R[-1]C+ 14 R[-1]C+ "MCR FLOWS USING OR IGINAL DESIGN CONVE NTIONAL FUEL (DCF) ONLY W/OUT RDF" 15 R[-1]C+ "IN" 16 R[-1]C+ "M, LB/HR" 17 R[-1]C+ 18 R[-1]C+

```
19 R(-1)C+ "DCF SH MAF"
                                                     R1C10
20 R[-1]C+ "DCF HHV MAF"
21 R[-1]C+ "ASH"
                                                     R2C10
22 R[-1]C+ "H20 LIQUID"
                                                     R3C10
23 R[-1]C+ "AIR,CP=.24"
                                                     R4C10
24 R[-1]C+ "DPC,CP=.25"
25 R[-1]C+ "H20 VAPOR"
26 R[-1]C+ "CARBON, HHV ONLY"
27 R[-1]C+ "LOSSES"
28 R(-1)C+ "TOTALS"
                                                     R5C10
29 R[-1]C+
30 R(-1)C+ "ENTHALPY TRANSFERE
           D TO STEAM USING DC
           F"
31 R[-1]C+ "BOILER EFFICIENCY
           USING DCF, A FRACTI
           ON"
32 R(-1)C+ "NASS FLOWRATE OF D
           CF"
33 R[-1]C+ "VOLUMETRIC FLOWRAT
           E FROM FURNACE W/ D
           CF"
34 R[-1]C+ "MASS FLOWRATE OF C
           OMBUSTION AIR W/ DC
35 R[-1]C+
36 R(-1)C+ "MCR FLOWS USING CU
           RRENT CONVENTIONAL
           FUEL (CF) ONLY WITH
           OUT RDF"
37 R[-1]C+
38 R[-1]C+
39 R[-1]C+
                                                     "M. LB\HR"
40 R[-1]C+
```

1		2		3	
41 R[-1] 1	C+ "CF SH	MAF"			R27C10
42 R[-1]	C+ "CF HHV	/ MAF"			
43 R[-1]	C+ "ASH"				R28C10
_	C+ "H2O L	IQUID"			R29C10
	C+ "AIR,C	P=.24"			R30C10
_	C+ "DPC,C	P=.25"			
	C+ "H2O V	APOR"			
-	C+ "CARBOI	N, HHV ONLY"			
-	C+ "LOSSE:	5 "			
-	C+ "TOTALS	3"			R31C10
51 R[~1]	C+				
-		LPY TRANSFER TEAM USING C			
53 R[~1] 1		R EFFICIENCY CF, A FRACTION	0		
54 R[~1]	C+ "MASS I	FLOWRATE OF	C		
55 R[-1] 1		ETRIC FLOWRA' FURNACE W/			
56 R[-1] 1		FLOWRATE OF (ION AIR W/ D			
57 R[-1]	C+ "		_		
1			- -		
58 R[-1] 1	C+				
59 R[-1] 1	REPRES	CALCULATIONS SENT AN ITERA ROCEDURE"			
60 R[-1] 1	C+ "BY ME	ANS OF WHICH D MCR CAN BE	5		
61 R(-1) 1		KIMATION OF (MCR IS ON L			

```
3
62 R(-1)C+ "RDF COFIRING FLOWS
           , ZEROTH ITERATION.
            CURRENT CONVENTION
           AL FUEL AND RDF"
63 R[-1]C+
64 R[-1]C+
                                                     "IN"
   1
65 R[-1]C+
                                                     "M, LB/HR"
66 R[-1]C+
67 R[-1]C+
68 R[-1]C+ "CF SH MAF"
                                                     R53C10
69 R[-1]C+ "CF HHV MAF"
70 R[-1]C+ "RDF SH MAF"
                                                     R54C10
71 R[-1]C+ "RDF HHV MAF"
72 R[-1]C+ "ASH"
                                                     R55C10
73 R[-1]C+ "H20 LIQUID"
                                                     R56C10
74 R[-1]C+ "AIR, CP=.24"
                                                     R57C10
75 R[-1]C+ "DPC,CP=.25"
76 R[-1]C+ "H20 VAPOR"
77 R[-1]C+ "CARBON, HHV ONLY"
78 R[-1]C+ "LOSSES"
79 R[-1]C+ "TOTALS"
                                                     R58C10
80 R[-11C+
81 R[-1]C+ "MASS FLOWRATE OF A
           S RCVD RDF, OIT"
82 R[-1]C+ "MASS FLOWRATE OF C
           F, OIT"
83 R[-1]C+ "HIGHER HEATING VAL
           UE OF RDF, AS-RCVD"
84 R[-1]C+ "FRAC EXCESS AIR RE
           QD FOR RDF COMBUSTI
           ON"
85 R[-1]C+ "ENTHALPY TRANSFERE
           D TO STEAM, OIT"
86 R[-1]C+ "BOILER EFFICIENCY.
            A FRACTION, OIT"
```

1 2 3

109 R[-1]C+ "TOTALS" R92C10

1

110 R[-1]C+

1

111 R[-1]C+ "ENTHALPY TRANSFERE

1 D TO STEAM ,1 IT"

112 R[-1]C+ "BOILER EFFICIENCY,

1 A FRACTION, 1 IT"

113 R[-1]C+ "VOLUMETRIC FLOWRAT

1 E FROM FURNACE, 1 I

T"

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TO STATE THE PROPERTY OF THE P

19 R6C10	5	6	7
20 R7C10			
21		R11C10	R16C10
22 R8C10			
23 R9C10			
24		R12C10	R17C10
25		R13C10	R18C10
26		R14C10	R19C10
27			R20C10
28 R10C10		R15C10	R21C10
29			
30		R22C10	"BTUH"
31		R23C10	"NONE"
32		R24C10	"LB/HR"
33		R25C10	"ACFH"
33		N23010	
34		R26C10	"LB/HR"
35			
36			
37			
38 "IN"		"OUT"	"OUT"
39 "E, BTUH	••	"M, LB\HR"	"E, BTUH"
40			

41 R32C10	J	·
42 R33C10		
43	R37C10	R42C10
44 R34C10		
45 R35C10		
46	R38C10	R43C10
47	R39C10	R44C10
48	R40C10	R45C10
49		R46C10
50 R36C10	R41C10	R47C10
51		
52	R48C10	"BTUH"
53	R49C10	"NONE"
54	R50C10	"LB/HR"
55	R51C10	"ACFM"
56	R52C10	"LB/HR"
57		
58		
59		
60		

COSSESSION DESCRIPTION OF THE PROPERTY OF THE

61.

62	J	,
63		
64 "IN"	"OUT"	"OUT"
65 "E, BTUH"	"M, LB/HR"	"E, BTUH"
66		
67		
68 R59C10		
69 R60C10		
70 R61C10		
71 R62C10		
72	R66C10	R71C10
73 R63C10		
74 R64C10		
75	R67C10	R72C10
76	R68C10	R73C10
77	R69C10	R74C10
78		R75C10
79 R65C10	R70C10	R76C10
80		
81	R77C10	"lb/hr"
82	R78C10	"lb/hr"
83	R79C10	"btu/lb"
84	R80C10	"NONE"
85	R81C10	"btuh"
86	R82C10	"none"
		

	5	6	7
87	J	R83C10	"acfm"
88		R84C10	"percent"
89		R85C10	"none"
90		R86C1O	"none"
91			
92			
93			
94			
95	"IN"	"OUT"	"סטד"
	"E, BTUH"	"M, LB/HR"	"E, BTUH"
			"E, ВТИН"
96 97			"E, ВТИН"
96 97 98	"Е, ВТИН"		"Е, ВТИН"
96 97 98 99	"E, BTUH"		"Е, ВТИН"
96 97 98 99	"E, BTUH" R93C10 R94C10		"Е, ВТИН"
96 97 98 99	"E, BTUH" R93C10 R94C10 R95C10		"E, BTUH"
96 97 98 99 100 101	"E, BTUH" R93C10 R94C10 R95C10	"M, LB/HR"	
96 97 98 99 100 101 102	"E, BTUH" R93C10 R94C10 R95C10 R96C10	"M, LB/HR"	
96 97 98 99 100 101 102	"E, BTUH" R93C10 R94C10 R95C10 R96C10 R97C10 R98C10	"M, LB/HR"	
96 97 98 99 100 101 102 103 104	"E, BTUH" R93C10 R94C10 R95C10 R96C10 R97C10 R98C10	"M, LB/HR" R100C10	R105C10
96 97 98 99 100 101 102 103 104 105	"E, BTUH" R93C10 R94C10 R95C10 R96C10 R97C10 R98C10	"M, LB/HR" R100C10	R105C10

5	5 6	7
109 R99C10	R104C10	R110C10
110		
111	R111C10	"BTUH"
112	R112C10	"NONE"
113	R113C10	"ACFN"

	8	9	[comba1	10 xferdat2]
1			IWOLKI	XIEIGGCZJ
2			[work1	xferdat2]
3			(work1	xferdat2]
4			[work1	xferdat2]
5			[work1	xferdat2]
6			[work1	xferdat2]
7			[work1	xferdat2]
8			[work1	xferdat2]
9			[work1	xferdat2]
10			[work1	xferdat2]
11			[work1	xferdat2]
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113			work1	xferdat2)



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1 232
            "THE FOLLOWING TABLES
             REPRESENT THE LIMITS
            OF STEAM PRODUCTION
            BETWEEN"
 2 R[-1]C+ "WHICH RDF MAY BE COF
           IRED. THESE ARE THE M
           CR (MAXIMUM CONTINUOU
           S RATING)"
 3 R[-1]C+ "AND THE MAXIMUM COFI
           RED TURNDOWN."
 4 R[-1]C+
 5 R[-1]C+ "-----
 6 R[-1]C+ "MCR WHILE COFIRING R
           DF AND CURRENT CONVEN
           TIONAL FUEL:"
 7 R[-1]C+
 8 R[-1]C+
 9 R[-1]C+
10 R[-1]C+
11 R[-1]C+ "CF SH MAF"
12 R[-1]C+ "CF HHV MAF"
13 R[-1]C+ "RDF SH MAF"
14 R[-1]C+ "RDF HHV MAF"
15 R[-1]C+ "ASH"
16 R(-1)C+ "H20 LIQUID"
17 R[-1]C+ "AIR, CP=.24"
18 R[-1]C+ "DPC, CP=.25"
19 R[-1]C+ "H20 VAPOR"
20 R[-1]C+ "CARBON, HHV ONLY"
21 R[-1]C+ "LOSSES"
22 R[-1]C+ "TOTALS"
```

```
23 R[-1]C+
24 R[-1]C+
25 R[-1]C+ "MAX ALLOW VOLUMETRIC
            FLOWRATE FROM FURN"
26 RI-11C+ "RATIO OF VDOTHCR TO
           VDOT1"
27 R[-1]C+ "CARBON LOSS AS A FRA
           C OF CF FUEL VALUE"
28 R[-1]C+ "CARBON LOSS AS A FRA
           C OF RDF FUEL VALUE"
29 R(-1]C+ "MAXIMUM CONTINUOUS R
           ATING WHILE COFIRING"
30 R[-1]C+ "BOILER EFFICIENCY AT
            MCR WHILE COFIRING"
31 R[-1]C+ "-
   1
32 R[-1]C+ "MAXIMUM COFIRED TURN
            DOWN, RDF AND CURRENT
            CONVENTIONAL FUEL:"
33 R[-1]C+
34 R[-1]C+
35 R[-1]C+
36 R[-1]C+
37 R[-1]C+ "CF SH MAF"
38 R[-1]C+ "CF HHV MAF"
39 R[-1]C+ "RDF SH MAF"
40 R[-1]C+ "RDF HHV MAF"
41 R[-1]C+ "ASH"
 42 Rt-11C+ "H2O LIQUID"
 43 R(-11C+ "AIR, CP=.24"
 44 R[-1]C+ "DPC, CP=.25"
 45 R[-1]C+ "H20 VAPOR"
 46 RI-13C+ "CARBON, HHV ONLY"
 47 R[-1]C+ "LOSSES"
```

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48 R[-1]C+ "TOTALS"
49 R[-1]C+
50 R[-1]C+ "VOL FLOWRATE FROM FU
           RNACE AT MMAX TURNDOW
           N"
51 R[-1]C+ "XXX TIMES RATIO OF D
           TOTHHVCF TO TOTHHVCF"
52 R[-1]C+ "CARBON LOSS AS A FRA
           C OF CF FUEL VALUE"
53 R[-1]C+ "CARBON LOSS AS A FRA
           C OF RDF FUEL VALUE"
54 R[-1]C+ "MAX TURNDOWN COFIRED
            STEAMRATE, BT STEAM"
55 R(-1)C+ "BOLIER EFFICIENCY AT
            MAX COFIRE TURNDOWN"
56 R[-1]C+
57 R[-1]C+ "LINES BELOW SHOW THE
            AMOUNT OF COFIRED ST
           EAM WHICH AMY BE"
58 R(-1)C+ "SUPPLIED BY SHIFT, D
           AY, AND SEASON. IT A
           LSO RESULTS IN HOURS,
59 R[-1]C+ "THE TIME PER YEAR TH
           AT COFIRING TAKES PLA
           CE IF AVAILABILITY WE
           RE"
60 R[-1]C+ "100% AND REALDOT, AN
           AVERAGE ANNUAL COFIR
           ED STEAMRATE AT 100%"
61 R[-1]C+ "AVAILABILITY."
62 R[-1]C+
63 R[-1]C+ "
                SUMMER STEAM SU
           PPLY, COFIRED, AVERAG
           E HOURLY, BTUH STEAM:
64 R[-1]C+
65 R[-1]C+
   1
66 R[-1]C+
                                  "MON-FRI"
```

67 R[-1]C+

1

2

"SAT"

```
3
                                   "SUN"
68 R[-1]C+
69 R[-1]C+
70 R[-1]C+ "
                 WINTER STEAM SU
           PPLY, COFIRED, AVERAG
           E HOURLY, BTUH STEAM:
71 R[-1]C+
72 R[-1]C+
                                   "MON-FRI"
73 R[-1]C+
                                   "SAT"
74 R[-1]C+
                                   "SUN"
75 R[-1]C+
76 R[-1]C+
77 R[-1]C+ "SPRING/FALL STEAM SU
           PPLY, COFIRED, AVERAG
           E HOURLY, BTUH STEAM:
78 R[-1]C+
79 R[-1]C+
80 R[-1]C+
81 R[-1]C+
                                   "MON-FRI"
82 R[-1]C+
                                   "SAT"
   1
                                   "SUN"
83 R[-1]C+
84 R[-1]C+ "TOTAL ANNUAL STEAM S
           UPPLIED COFIRED"
85 R[-1]C+ "AVG COFIRED STEAM SU
           PPLY RATE, THEORITICA
           L"
86 R[-1]C+ "HOURS/YR COFIRING AS
           SUMING 100% AVAILABIL
           ITY"
87 R[-1]C+ "REAL AVG HOURLY COFI
           RED STEAMRATE"
88 R[-1]C+
89
90
91
92
                                        D-69
```

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2			
3			
4			
5			
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7			
8	"IN"	"IN"	"out"
_		44 570 10 470 10	***
9	"M. LB/HR"	"E, BTUH"	"M, LB/HR"
10	"M, LB/HR"	"E, BTUH"	"H, LB/HR"
10	"M. LB/HR" R1C10	R7C10	"H, LB/HR"
10			"H, LB/HR"
10 11 12		R7C10	"M, LB/HR"
10 11 12	R1C10	R7C10 R8C10	"H, LB/HR"
10 11 12 13	R1C10	R7C10 R8C10 R9C10	"M, LB/HR"
10 11 12 13 14 15	R1C10 R2C10	R7C10 R8C10 R9C10	
10 11 12 13 14 15	R1C10 R2C10 R3C10	R7C10 R8C10 R9C10 R1OC10	
10 11 12 13 14 15	R1C10 R2C10 R3C10 R4C10	R7C10 R8C10 R9C10 R10C10	
10 11 12 13 14 15 16	R1C10 R2C10 R3C10 R4C10	R7C10 R8C10 R9C10 R10C10	R14C10
10 11 12 13 14 15 16	R1C10 R2C10 R3C10 R4C10	R7C10 R8C10 R9C10 R10C10	R14C10 R15C10

6

R13C10

R18C10

4	J	9
23		
24		R25C10
25		R26C10
26		R27C10
27		R28C10
28		R29C10
29		R30C10
30		R31C10
31		
32		
33		
34 "IN"	"IN"	"OUT"
34 "IN" 35 "M, LB/HR"	"IN" "E, BTUH"	"OUT" "M, LB/HR"
35 "M, LB/HR"		
35 "M, LB/HR" 36	"Е, ВТИН"	
35 "M, LB/HR" 36 37 R32C10	"E, BTUH"	
35 "M, LB/HR" 36 37 R32C10 38	"E, BTUH" R38C10 R39C10	
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10	"E, BTUH" R38C10 R39C10 R40C10	
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10	"E, BTUH" R38C10 R39C10 R40C10	"M, LB/HR"
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10 40 41 R34C10	"E, BTUH" R38C10 R39C10 R40C10 R41C10	"M, LB/HR"
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10 40 41 R34C10 42 R35C10	"E, BTUH" R38C10 R39C10 R40C10 R41C10	"M, LB/HR"
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10 40 41 R34C10 42 R35C10 43 R36C10	"E, BTUH" R38C10 R39C10 R40C10 R41C10	"M, LB/HR" R45C10
35 "M, LB/HR" 36 37 R32C10 38 39 R33C10 40 41 R34C10 42 R35C10 43 R36C10	"E, BTUH" R38C10 R39C10 R40C10 R41C10	"M, LB/HR" R45C10

	4	5	6
	8 R37C10	R44C10	R49C10
	19		
9	50		R56C10
=	51		R57C10
	52		R58C10
	5 3		R59C10
	54		R60C10
5	55		R61C10
5	56		
_	5 7		
-	5 <i>7</i>		
Ę	68		
5	59		
6	60		
E	51		
ϵ	52		
E	53		
6	54		
	55	"SHIFT 1"	"SHIFT 2"
	66	R62C10	R63C10
6	57	R65C10	R66C10

	4		5		6
68	_	R68C10		R69C10	
69					
70					
71					
72		"SHIFT 1"		"SHIFT 2"	
73		R71C10		R72C10	
74		R74C10		R75C10	
75		R77C10		R78C10	
76					
77					
78					
79					
80		"SHIFT 1"	•	"SHIFT 2"	
91		R80C10		R81C10	
82		R83C10		R84C10	
83		R86C10		R87C10	
84				R89C10	
85				R90C10	
86				R91C10	
87				R92C10	
88					
89 90					
91					
92					
			D 73		

7 8 9
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8 "OUT"
9 "E, BTUH"

10 11 12

13 14 15 R19C10

15 R19C10 16 17

18 R20C10 19 R21C10

20 R22C10 21 R23C10

22 R24C10

7 8 9

23

24 "ACFM"

25 "NONE"

26 "PERCENT"

27 "NONE"

28 "NONE"

29 "BTUH"

30 "NONE"

31

32

33

34 "OUT"

35 "E, BTUH"
36

37

38 39

40

41 R50C10 42

43

44 R51C10

45 R52C10

46 R53C10

47 R54C10 D-75

64

65 "SHIFT 3"

66 R64C10

67 R67C10

7 8 9

68 R70C10

69 70

71

72 "SHIFT 3"
73 R73C10

73 R73C10 74 R76C10

75 R79C10 76

77

78 79

80 "SHIFT 3" 81 R82C10

82 R85C10

83 R88C10 84 "BTU"

85 "BTUH"

86 "HOURS"

87 "BTUH"

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91 (WORK1 XFERDAT3) 92 (WORK1 XFERDAT3)



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1 328
2 R[-1]C+ "AVERAGE COFIRED FL
          OWS, ZEROTH ITERATI
           ON, RDF AND CURREN
           T CONVENTIONAL FUEL
3 R[-1]C+
                                                     "IN"
4 R[-1]C+
                                                     "M, LB/HR"
5 R[-1]C+
6 R[-1]C+
                                                     R1C10
7 R[-1]C+ "CF SH MAF"
8 R[-1]C+ "CF HHV MAF"
                                                     R2C10
9 R[-1]C+ "RDF SH MAF"
10 R[-1]C+ "RDF HHV MAF"
                                                     R3C10
11 R[-1]C+ "ASH"
                                                     R4C10
12 R[-1]C+ "H20 LIQUID"
                                                     R5C10
13 R[-1]C+ "AIR, CP=.24"
14 R[-1]C+ "DPC, CP=.25"
15 R[-1]C+ "H20 VAPOR"
16 R[-1]C+ "CARBON, HHV ONLY"
17 R[-1]C+ "LOSSES"
                                                     R6C10
18 R[-1]C+ "TOTALS"
19 R[-1]C+
20 R[-1]C+ "AVERAGE VOLUMETRIC
            FLOWRATE FURNACE"
21 R[-1]C+ "RATIO OF REALDOT T
           O HSTM1"
   1
22 R[-1]C+ "QUOTE AVERAGE TURN
           DOWN UNQUOTE"
   1
23 RI-11C+ "AVG CARBON LOSS AS
             A FRAC OF CF FUEL
```

VALUE"

	1	2	3	
24	R[-1]C+	"AVG CARBON LOSS AS A FRAC OF RDF FUEL		
		VALUE"		
25	R[-1]C+ 1	"ITERATION ZERO STE AM SUPPLY COMPARED"		
26	R[-1]C+	**		
	1			
27	R[-1]C+	"THE LAST TWO TABLE		
	1	S LINES XXX-XXX REP		
28	P(-11C+	RESENT THE FINAL" "CALCULATIONS FOR F		
20	1	LOWS AT THE AVG COF		
	_	IRED STEAM DEMAND"		
29	R[-1]C+	"ASSUNING COMPLETE		
	1	AVAILABILITY."		
30	R[-1]C+			
31		"AVERAGE COFIRED FL		
	1	OWS, FINAL ITERATIO		
		N, RDF AND CURRENT		
		CONVENTIONAL FUEL"		
32	R[-1]C+			
	1			
33	1 R[-1]C+			11 ~ ~
	R[-1]C+			"IN"
	R[-1]C+			"IN" "M, LB/HR"
34	R[-1]C+ 1 R[-1]C+			
34 35	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1	"CF SH MAF"		"M, LB/HR"
34 35 36	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1			
34 35 36	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+	"CF SH MAF"		"M, LB/HR"
34 35 36 37	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+	"CF HHV MAF"	1	"M, LB/HR"
34 35 36 37	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+		1	"M, LB/HR"
34 35 36 37 38	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1	"CF HHV MAF"	1	"M, LB/HR"
34 35 36 37 38	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF"	1	"M, LB/HR"
34 35 36 37 38 39	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF"	ī	"M, LB/HR"
34 35 36 37 38 39	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH"	; F	"M, LB/HR" R31C10
34 35 36 37 38 39 40	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH" "H20 LIQUID"	; F	"M, LB/HR"
34 35 36 37 38 39 40	R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+ 1 R[-1]C+	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH"	i F F	"M, LB/HR" R31C10
34 35 36 37 38 39 40 41	R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH" "H20 LIQUID" "AIR, CP=.24"	i F F	"M, LB/HR" R31C10 R32C10 R33C10
34 35 36 37 38 39 40 41	R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH" "H20 LIQUID" "AIR, CP=.24" "DPC, CP=.25"	i F F	"M, LB/HR" R31C10 R32C10 R33C10
34 35 36 37 38 39 40 41	R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH" "H20 LIQUID" "AIR, CP=.24"	i F F	"M, LB/HR" R31C10 R32C10 R33C10
34 35 36 37 38 39 40 41 113 114 113	R[-1]C+ 1	"CF HHV MAF" "RDF SH MAF" "RDF HHV MAF" "ASH" "H20 LIQUID" "AIR, CP=.24" "DPC, CP=.25"	i F F	"M, LB/HR" R31C10 R32C10 R33C10

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3
46 R[-1]C+ "LOSSES"
                                                     R36C10
47 R[-1]C+ "TOTALS"
48 R[-1]C+
49 R[-1]C+ "FINAL AVG VOLUMETR
           IC FLOWRATE FROM FU
           RN"
           "ENTHALPY INTO FURN
50 R[-1]C+
           ACE INC. AIR PREHEA
51 R[-1]C+ "FURNACE ADIABATIC
           FLAME TEMP"
52 R[-1]C+ "FINAL AVERAGE COFI
            RED STEAM"
53 R[-1]C+ "FINAL AVERAGE CIFI
            RED BOILER EFFICIEN
   1
54 R[-1]C+
   1
55 R[-1]C+ "AVERAGE NON-COFIRE
            D FLOWS (NO RDF), C
            URRENT CONVENTIONAL
             FUEL"
56 R[-1]C+
    1
                                                      "IN"
 57 R[-1]C+
                                                      "M, LB/HR"
 58 R[-1]C+
    1
 59 R[-1]C+
                                                      R60C10
 60 R[-1]C+ "CF SH MAF"
 61 R[-1]C+ "CF HHV MAF"
                                                      R61C10
 62 R[-1]C+ "ASH"
                                                      R62C10
 63 R[-1]C+ "H20 LIQUID"
                                                      R63C10
 54 R[-1]C+ "AIR, CP=.24"
 65 R[-1]C+ "DPC, CP=.25"
 66 R[-1]C+ "H20 VAPOR"
 67 R[-1]C+ "CARBON, HHV ONLY"
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68 R[-1]C+ "LOSSES" 69 R[-1]C+ "TOTALS" R64C10 70 R[-1]C+ 71 R[-1]C+ "FINAL AVG NON-COFI RED VOLUMETRIC FLOW 72 R[-1]C+ "FINAL AVG NON-COFI RED STEAM RATE" 73 R[-1]C+ "FINAL AVG BOILER E FFICIENCY W/ 100x" 74 R[-1]C+ 75 76 77 78 79 80 81 82 83

5	6	7
1		
2		
3		
4 "IN"	"OUT"	"OUT"
5 "E, BTUH"	"M, LB/HR"	"Е, ВТИН"
6		
7 R7C10		
8 R8C10		
9 R9C10		
10 R10C10		
11	R14C10	R19C10
12 R11C10		
13 R12C10		
14	R15C10	R20C10
15	R16C10	R21C10
16	R17C10	R22C10
17		R23C10
18 R13C10	R18C10	R24C10
19		
20	R25C10	"ACFM"
21	R26C10	"NONE"
22	R27C10	"PERCENT"

R28C10

23

"NONE"

24	5	R29C10	6	"NONE"	7
25		R30C10		"BTUH"	
26					
27					
28					
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32					
33 "IN"		"OUT"		"OUT"	
33 "IN" 34 "E, BTUH"		"OUT"		"OUT"	
34 "E, BTUH"	•		. 		
34 "E, BTUH"	•		••		
34 "E, BTUH" 35 36 R37C10	•				
34 "E, BTUH" 35 36 R37C10 37 R38C10	•				
34 "E, BTUH" 35 36 R37C10 37 R38C10 38 R39C10	•		.••		
34 "E, BTUH" 35 36 R37C10 37 R38C10 38 R39C10 39 R40C10	•	"M, LB/HR		"E, BTUH"	
34 "E, BTUH" 35 36 R37C10 37 R38C10 38 R39C10 39 R40C10	•	"M, LB/HR	,•••	"E, BTUH"	
34 "E, BTUH" 35 36 R37C10 37 R38C10 38 R39C10 39 R40C10 40 41 R41C10	•	"M, LB/HR		"E, BTUH"	
34 "E, BTUH" 35 36 R37C10 37 R38C10 38 R39C10 39 R40C10 40 41 R41C10 42 R42C10	•	"M, LB/HR		"E, BTUH"	

	5	6 7
46		R53C10
47 R43C10	R48C10	R54C10
48		
49	R55C10	"ACFM"
50	R56C10	"HUTE"
51	R57C10	"DEG F"
52	R58C10	"BTUH"
53	R59C10	"NONE"
54		
35		
56		
57 "IN"	"OUT"	"דטס"
58 "E, BTUH"	"M, LB/HR	"Е, ВТИН"
59		
60 R65C10		
61 R66C10		
6 2	R70C10	R75C10
63 R67C10		
64 R68C10		
65	R71C10	R76C10
66	R72C10	R77C10
67	R73C10	R78C10

	5		6		7
68	J			R79C10	
69 R69C10		R74C10		R80C10	
70					
71		R81C10		"ACFM"	
72		R82C10		"BTUH"	
73		R83C10		"NONE"	
74					

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81			(WORK1	****
82			[WORK1	
83			[WORK1	XFERDAT4]



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1	"SUMMARY			
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	RESULTS B			
	EGIN ON L			
	INE 410:"			
2	407			
	R[-1]C+1	"INTTS"	"RDF"	
		ONTIS		
	R[-1]C+1		"COFIRING"	
5	R[-1]C+1	"BTUH"	R1C12	
6	R[-1]C+1	"BTUH"	R2C12	
~	Dr 430.1	UDTILL	R3C12	
/	R[-1]C+1	DIUN	KOOIZ	
Ω	R[-1]C+1	"NONE"	R4C12	
0	WE 110.1	1101112		
			05.54.0	
9	R[-1]C+1	"NONE"	R5C12	
10	R[-1]C+1	"BTUH"	R6C12	
	N1 110.1	2.0	*****	
			0744	
11	R[-1]C+1	"NONE"	R7C12	
12	R[-1]C+1	"BTUH"	R8C12	
	57 430 4	11 TO 11 11	R9C12	
13	R[-1]C+1	"TPH"	K9C12	
14	R[-1]C+1	"LB/HR"	R10C12	
			544.545	
15	R[-1]C+1	"LB/HR"	R11C12	
16	R[-1]C+1	"NONE"	R12C12	
10	N. 1.0 1			
17	R[-1]C+1	"NONE"	R13C12	
		*** 5 411514	R14C12	
18	R[-1]C+1	"LB\HK"	RIACIZ	
	D. 430.4	HID /MMDET	" R15C12	
19	R[-1]C+1	"LB/MMBTU	RISCI2	
20	P[-11C+1	"LB/MMBTU	" R16C12	
20	WE TICLE	CD/ HHO! O		
21	R[-1]C+1	"LB/HR"	R17C12	
		: :		

1 22 R[-1]C+1	"ACFM"	R18C12	3
23 R[-1]C+1	"LB/HR"	R19C12	
24 R[-1]C+1	"ACFM"	R20C12	
25 R[-1]C+1	"NONE"	R21C12	
26 R[-1]C+1	"NONE"	R22C12	
27 R[-1]C+1	"\$/HR"	R23C12	
28 R[-1]C+1	"\$/HR"	R24C12	
29 R[-1]C+1	"\$/HR"	R25C12	
30 R[-1]C+1	"LB/HR"	R26C12	
31 R[-1]C+1	"\$/YR"	R27C12	
32 R[-1]C+1	"MAN/SHIFT"	R28C12	
33 R[-1]C+1	"\$/HR"	R29C12	
34 R[-1]C+1	"\$/HR"	R30C12	
35 R[-1]C+1	"\$/HR"	R31C12	
36 R[-1]C+1	"HOURS"	R32C12	
37 R[-1]C+1	"\$/YR"	R33C12	
38 R[-1]C+1	"NONE"	R34C12	
39 R[-1]C+1	"BTU"	R35C12	
40 R[-1]C+1	"\$/YR"	R36C12	
41 R[-1]C+1	"\$/YR"	R37C12	
42 R[-1]C+1	"\$/YR"	R38C12	
43 R[-1]C+1	"\$/YR"	R39C12	

44	1 R[-1]C+1	2 "\$/YR"	o	3
	R[-1]C+1 R[-1]C+1	"NONE"	R40C12	
47	R[-1]C+1	"LB/MMBTU"	R41C12	
48	R[-1]C+1			
	R[-1]C+1 R[-1]C+1	" s "	R42C12	
51	R[-1]C+1	" \$ "	R43C12	
52	R[-1]C+1	"g"	R44C12	
53	R[-1]C+1	"\$"	R45C12	
54	R[-1]C+1	"\$"	R46C12	
55	R[-1]C+1	"\$"	R47C12	
56	R[-1]C+1	"\$ "	R48C12	
57	R[-1]C+1	"\$"	R49C12	
58	R[-1]C+1	" s "	R50C12	
59	R[-1]C+1	"NONE"	R51C12	
60	R[-1]C+1	"s/YR"	R52C12	
61	R[-1]C+1	"\$/YR"	R53C12	
62	? R[-1]C+1	"\$/YR"	R54C12	
63	R[-1]C+1	"\$/MMBTU"	R55C12	
64	R[-1]C+1	"NONE"	R56C12	

1 65 R[-1]C+1		2	R57C12
66 R[-1]C+1	"\$/YR"		R58C12
67 R[-1]C+1	"TPY"		R59C12
68 473	"\$/YR"		R99C12
69 474	"NONE"		R100C12
70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102			

_		
2	"CONVENTIONAL"	"VARIABLE"
_	"FUEL"	"DEFINITION"
-	R60C12	"ENTHALPY TRANSFERE
	N00012	D TO STEAM, AVG HOU
		RLY, 100% AVAILABIL
		ITY"
6	R61C12	"MCR, ABS MAX FOR C
		OFIRED CASE (RERATE
		D AT HI VELOCITY)"
7	"NA"	"MAXIMUM TURNDOWN S
•	•••	TEAM RATING, SEAM B
		TUH"
8	R62C12	"BOILER EFFICIENCY
		AT MCR"
9	R63C12	"BOILER EFFICIENCY
		AT AVERGE OUTPUT"
10	R64C12	"MAXIMUM STEAM DEMA
		ND (MSD)"
11	"NA"	"DERATE"
12	R65C12	"TOTAL FUEL INPUT E
		NTHALPY, AVERAGE"
13	"NA"	"RDF FLOWRATE, AVER
		AGE"
14	R66C12	"CONVENTIONAL FUEL
		INPUT ENTHALPY, AVE
		RAGE"
15	R67C12	"SOLID RESIDUE GENE
		RATED, AVERAGE"
16	R68C12	"CARBON CONTENT OF
		SOLID RESIDUE, MAX
	2424	HOURLY AT MCR"
17	R69C12	"FLYASH FRACTION OF
		SOLID RESIDUE, AVE
10	P70010	RAGE"
18	R70C12	"FLYASH EMISSION AB
		SOLUTE AVG EXISTING CONTROL DEVICE AT
		MCR"
10	P71C12	"ENISSION OF TSP, M
13	R71C12	AX HOURLY W/ EXISTI
		NG CNTRL AT NCR"
20	R72C12	"UNCONTROLLED FLYAS
20	11/2022	H EMMISSION, MAX HO
		URLY AT MCR"
21	R73C12	"COMBUSTION AIR RAT
		E. AVERAGE"

		5	6
22 R74C12	4	3	"COMBUSTION AIR VOL UNETRIC FLOWRATE, A
23 R75C12			VERAGE" "WET FLUE GAS RATE, AVERAGE"
24 R76C12			"WET FLUE GAS VOLUM ETRIC FLOW, AVERAGE
25 R77C12			"EMISSION CNTRL DEV ICE ASSUMED EFFICIE NCY (EXISTING DEVIC
26 R78C12			E)" "NEW EMISSION CONRT OL DEVICE REQUIRED 1= YES"
27 R79C12			"ELECTRIC POWER COS T FOR FD SYSTEM, AV
28 R80C12			ERAGE" "ELECTRIC POWER COS T FOR ID SYSTEM, AV ERAGE"
29 R81C12			"MISC ELECTRIC POWE R COSTS, AVERAGE"
30 R82C12			"SOLID RESIDUE GENE RATED, MAX HOURLY A T MCR"
31 R83C12			"ANNUAL LABOR COST, BURDENED"
32 R84C12			"OPERATORS PER SHIF T"
33 R85C12			"CONVENTIONAL FUEL COST, AVERGAE"
34 "NA"			"RDF FUEL COST, AVE RAGE"
35 R86C12			"ASH DISPOSAL COST, AVERAGE" "OPERATING HRS/YR I
36 R87C12			N COFIRED STEAM SUP
37 "NA"			"INCREMENTAL MAINTE NANCE COST, ANNUAL"
38 R88C12			"AVAILABILITY, FRAC
39 R89C12			"ANNUAL STEAM PRODU CTION, NET"
40 R90C12			"RELATIVE ELECTRIC POWER ANNUAL COST" "ANNUAL CONVENTIONA
41 R91C12			L FUEL COST" "ANNUAL RDF FUEL CO
42 "NA" 43 R92C12			ST" "ANNUAL ASH DISPOSA
43 KAKUIK			L COST"

	_
4 44 R93C12	5 6 "Annual MSW disposa
45	L COST"
45	"FURNACE COLD (MAKI
46 "NA"	NG CO & SMOKE) IF =
47 "NA"	"NEW MAX EMISSIONS
	RATE W/ NEW CONTROL DEVICE"
48	" INCLUDED IN CAP ITAL COST"
49	
50 "NA"	"BARE CAPITAL COST
	OF STORAGE SUBSYSTE
51 "NA"	"BARE CAPITAL COST
	OF LONG MECHANICAL
50	CONVEYOR"
52 "NA"	"BARE CAPITAL COST OF SHORT MECHANICAL
	CONVEYOR"
53 "NA"	"BARE CAPITAL COST
	OF RDF DELIVERY SYS
	TEN"
54 "NA"	"BARE INCREMENTAL C
	OST OF ASH HANDLING
	SYSTEM"
55 "NA"	"BARE INCREMENTAL C
	APITAL COSTS FOR EM ISSIONS CONTROL"
56 "NA"	"BARE INCREMENTAL C
30 NA	OST FOR BOILER MODI
	FICATIONS"
57 "NA"	"BARE TOTAL INCREME
	NTAL CAPITAL COSTS"
58 "NA"	"BURDENED TOTAL INC
	REMENTAL CAPITAL CO STS"
59 R94C12	"GAPITAL RECOVERY F
33 K34012	ACTOR"
60 "NA"	"ANNUALIZED COST OF
	CAPITAL"
61 R95C12	"TOTAL ANNUAL OGM C
60 P06640	OST"
62 R96C12	"TOTAL ANNUAL COST
	INCLUDING COST OF C APITAL"
63 R97C12	"TOTAL COAT PER MIL
	LION BTU OF STEAM"
64 "NA"	"SIR (SAVINGS/INVES
	THENT) AT EQUAL ANN
	UAL STEAM PRODUCTIO
	N"

65	R98C12
66	"NA"
67	"NA"
68	"NA"
69	"NA"
70 71 72 73 74 75 77 78 79 80 81 82 83 84 85 86 87 88 89 91 91 92 93 94 95 96 97 97 97 97 97 97 97 97 97 97 97 97 97	

CONTRACTOR OF STANDARD AND STANDARD INCOME. INCOME INCOME INCOME AND STANDARD STANDARD AND STAND

"TOTAL OWN COST PER MILLION BTU OF STE AM"
"OWN COSTS FOR PULV ERIZER IF NOT RDF B UT COAL USED AS ASF "
"TONS PER YEAR RDF REQUIRED"
"Avoided disposal cost"
"SIR w/disposal credit"

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19			LWUKKA	. Aleideloj
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21			[WORK2	xferdat5]

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64			[WOR/2	xferdat5]

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68			LMUBKS	xferdat5)
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69			เทบอหว	xferdat5]
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102			LWURK2	xferdat5]

APPENDIX E

COMPLETE OPERATIONAL AND ECONOMIC DATA OUTPUTS FOR THE SENSITIVITY AND BEST CASE ANALYSIS

Court has a se

and the second of the second o	٥		-		^					
Little Eree Amphibious Base			Ì		•		RDF Mossture			
	Por Cofurance	Conventional Fuel	Setuma c	Conventional Fuel	Cofiting	Conventional Fuel	Cofifina	Convent : ona! Fue!	Soft for	Conventional Fuel
definition		İ				i			•	
ENTHOL PY TRONGSTERED TO STEAM, ANG HOURLY, TOUS ANATLABILITY	5.825+07	5.82€+07	6. 48€+07	6. 48€+∪7	6. 48E+07	6, 48€ +07	5.916+07	5.916+07	5.69€+07	5.69€+07
MCR, ABS MAX FOR COFIRED CASE (RERATED AT HI VELOCITY)	8.64€+07	8. 45E+07	8.64E+07	8. 45£+07	8. 64E+07	8, 45€+07	8.83£+07	8.45€+07	8.39£+07	
MAXIMUM TUPNDOWN STEAM RATING, SEAM BYTH	2.06E+07		2.0 6E+ 07		2.066+07		2, 0 8 E +07		2.08E+07	
BOILER EFFICIENCY AT MOR	9: 36	0.83	0.76	0.83	0.76	0.83	0.77	0.83	6.73	0.83
BOILER EFFICIENCY AT AVERGE OUTPUT	0.71	o. 83	0.71	3 3	0.71	0.83	0.71	0.83	0.69	0.83
MAXIMUM STEAM DENAMO (MSD)	1.50€+08	1.50€+08	1,506+08	1.50€+08	1.50€+08	1.50€+08	1.50£+08	1.50€+08	1.506+08	1.50€+08
DEBATE THE TANK OF THE PARTY OF	0 345.40	7 005407	0 000 0	7 705.47	0 60.00	1 305.07	0	10.20.	0.01	C 065
TOTAL TOTAL THROUGH SMITHLETT, MYENNOC	3.5	, ,	2.83	(S. 7)	2.89	, , , , , , , , , , , , , , , , , , , 	2.3	/· 165 vo	3.05	
CONVENTIONAL FUEL INDIT ENTHALPY, AVERAGE	19	5073	392	2648	3353	2648	3597	5158	890	4964
SOLID RESIDUE GENERATED, AVENGE	1375	Ŝ	1.5	474	1475	474	1313	æ ,	9541	
CARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT HOR	\$.0	0.17	0.42	0.17	0.42	0.17	0.46	0.17	0.41	
FLYACH FRACTION OF SOLID RESIDUE, AVERAGE	0.15	* °	0.15	あっ つ	0.15	₹,°	0.16	₹°0	0.13	表 °°
FLYAME ENISSIDE AND THE TAKE EXISTENDE CONTROL DEVICE AT MCH.	~	n 8	~ {	~ ş	~ {	~		n (~ ;	
EMISSION OF ISP, MAY HOMELY W/ EXISTING DATAL REPORTED	8 G	8 8 6 °	8 G	8 8	6 8. 9.	8 8	20.0	3 8	9°.	o .
UNIQUESTION DIS BOTE. DATEBOOK. THE MODELS HIS HOS	90045	67977	77.00	25.57	1.04	8.1	A0333	80.59 50.69	79.85	_
COMMISSION AIR VOLUMETRIC FLOWRATE, RVERGEE	17788	15106	19617	16817	19617	16817	17652	15.007	1770	
NET FLUE BAS ARTE, AVERAGE	87489	72625	96528	90651	96529	80851	87214	73830	87874	
NET FLUE BAS VOLUMETRIC FLOH, AMENAGE	17625	26738	28470	29834	28470	2963	75627	27243	23066	
EMISSION ONTR. DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)			-	-	-			-	-	
NEW EMISSION CONNTOL DEVICE REGULRED 1= YES	0	•	0	0	٩	0	0	0	0	
	50.8 7	7.0	96 (96 (3. 3.	¥ :	50.8 3	\$0.88		\$0.87	
ELECTRIC POLER COST FOR 10 SYSTEM, AVERGE	11.73	90.05 50.00	8 : 8 :	\$0.00 \$0.00 \$0.00	ର ଧୁ	80.00 80.00	51.73		\$1.80	
MISH ELELINIC PUREN LUSIS, INVENDED OF HIS	55.50 54.50	8.5	3.5	90.08 91.3	4	9.0	, K. 8/	9.0	7 (c)	8.3
ANALISE LEGEOR COST. BUIDDED	\$337.406	\$243, 638	\$337.406	£43,638	\$337.406	5243,638	\$337.406	859°E428	\$337,406	\$243
OPERATORS PER SHIFT	2.31	1.67	2.31	1.67	2.31	1.67	2,31	1.67	2.31	
COMENTIONAL FLEL COST, AMERICAE	\$106.00	\$150.00	\$117.00	\$167.00	\$117.00	\$167.00	\$106.00	\$152.00	\$105.00	3
ROF FUEL COST, AVENDE	\$5.00		%		\$6. 00		\$5.00		\$6.00	
ASH DISPOSAL COST, AVERAGE	\$10.45	\$3.23	\$11.20	\$3.60	\$11.20	\$ 3.60	16.97	£3.28	\$11.07	\$3.16
CHEROTING MIS/YR IN COFFINED STEAM SUPPLY RONGE	863 (7862	83 i	7862	853 3	38 2	9673 1	7862	8	7862
INCREMENTAL MAINTENANCE COST, SANCKE	6 ,73	<	Ş.	<		6	5 5, 2 5	4	55,8 7	•
CAMBLE STEEL STEEL SETTING NET	3, 665+11	6.57F+11	0.7E	7 (96+1)	0.75 A 075+11	5.095+11	3,75	6.5 4.5 4.1 1	2/ 205 - 1	0.9
PELATIVE ELECTRIC POWER ANNUR, COST	536,983	\$5,637	\$41,810	96. 438	\$41.810	\$6. 438	9K 153	45. 33	\$39,704	\$5,711
ANNUAL COMPORTIONAL FLEL COST	\$665, 122	\$1,176,749	\$733,517	\$1,310,042	\$733,517	\$1,310,042	\$667,511	\$1.196,276	\$662,124	13
ANNUAL RDF FLEL COST	\$2,25		\$36,311		£36, 311		\$28, 913		\$38,239	
AMMUNE, ASH DISPOSAL, COST	\$65,710	£2, 339	\$70,450	S28, 276	\$70,450	£28, 276	462 , 711	15	099 698	
PANCING, MSM. DISPOSAL, COST	Ž	\$102,393	3	\$102, 393	\$	\$102, 393	3	\$102, 393	\$	\$102, 393
FUNDALE LULU (THRING LU E SAURE) IF # 1			·		9 :		9		-	
INCLUDED IN CAPITS. CAST	3		3		3		3.		 	
BONE CAPITAL COST OF STURBORE SLUBSYSTEM	\$109,411		\$109,010		\$109,010		\$104,234		\$115,640	
BARE CAPITAL COST OF LONG NECHONIDAL CONVEYOR	0\$		2		\$		\$		\$	
BANE CAPITAL COST OF SHORT MECHANICAL CONVEYOR	\$		\$		3		3		*	
BANKE CAPITAL COST OF ROF DELIVERY SYSTEM	\$5,263		5 5,263		5 55,283		186.041 1.00.041		इं. इं.	
DARK INCREMINE WAS UP ANY INSULTING STATES.	2 \$		3 5		3 5		3 3		₹ ;	
BORE INCREMENTAL COST FOR BOTHER MIDIETICALISMS	\$337.682		43.77.54P		587.758) (12 OP. 9		74 555;	
									and lane,	

BANE TOTAL INCREDENTAL CAPITAL COSTS AUREDEED TOTAL INCREDENTAL CAPITAL COSTS CAPITAL RECOVERY FACTOR NAMALIZED COST OF CAPITAL	\$542, 356 \$715, 910 9, 54 80	\$ 6	\$541,955 \$715,380 \$2.54	\$	\$541,955 \$715,380 \$7.54	\$ o	\$713, 955 9713, 955 9, 54	\$ 6	8543,710 8717,697 9.54 80	ភិ
	\$1, 163, 858	\$1,451,622	\$1,245,248	\$1,588,454	\$1,245,248	\$1,588,454	\$1,157,039	•	\$1, 172, 970	\$1, 425, 599
TOTRE, ANCIAL, COST INCLUDING COST OF CAPITIAL	\$	11, 451, 622	3	\$1,586,454	3	\$1,588,454	3	-	3	21,424,539
	80.08	\$3.17	\$0.00	9 3. 12	\$0.00	\$3.12	\$0.00		\$0.08	\$3.19
SIR (SAVINGS/INVESTMENT) AT EQUAL PANUAL STEPH PRODUCTION	٠ ه		∯. °0		₹.°0		0.27		.4.0	
total our cost per hillion btu of steam	\$3,18	\$3.17	\$3.06	\$3. 12	\$3.06	\$3. 12	\$3.11		\$3.28	\$3. 19
04M COSTS FOR PULVERIZER IF NOT ROF BUT CORL USED AS ASF	8 0.00		\$0.00		\$0.00		\$ 0.00		60.03	
	16463		18155		18155		14456		19120	

Summary of Sensitivity Analysis	'n		Φ.		7		63	
Little Creek Amphibious Base	i.				Percent Ash		;	ı
Cefinition	Cofifing	Conventional Fuel	Cofiting	Conventional Fuel	ւն Մուրոց	Conventional Fuel	for Cofiting	Convent I ona! Fue!
ENTHALPY TRONGFERED TO STEAM, ANG HOURLY, 100% AMPLIABILITY	6.17E+07	6.17€+07	5.51E+07	5,516+07	5, 79€+07	5. 79€+07	5.74€+07	5. 74€+07
MCR, ABS MAX FOR COFINED CASE (REPATED AT HI VELOCITY)	3.33€+07	8. 52E+07	8.03€+07	8.38E+07	8.57E+07	8. 45€+07	8.49£+07	8. 45£+07
ADXING TURNODER STEAR 2011NG, SECRETER	2.075+07		2, 04E+07		2.05E+07		2.03€+07	
BOILER EFFICIENCY AT MCR	0.77	0.84	0.76	0.8%	0,76	0.83	0.76	0.83
ROTLER EFFICIENCY AT AVERGE OUTPUT	0.72	6 .0	0.7	0.83	0.7	0.83	0.7	 83
MAXINGM STEAM DEROND (MSD)	1.50£+08	1.50€+08	1.50€+08	1. 50£+08	1.50€+08	1.50€+08	1.50£+08	1,50€+08
DEBATE	0		\$ 0.0		0		•	
TOTAL FLEL INDUT ENTHALPY, AMERICE	8.615+07	7.36E+07	7.925+07	6.69€+07	8.24E+07	6,96€+07	8.23€+07	6.91€+07
RDF FLOWROTE, AMERICE	2.73		2.51		 8		3.66	
CONVENTIONAL FLEL INDUT ENTHALPY, AVERAGE	3745	5333	3444	6484	2800	2046	3578	2008
SOLID RESIDUE GENERATED, AVERAGE	1417	*	1337	90	2072	63	908	8
CARBON CONTENT OF SOLID RESIDUE, MAY HOURLY AT MOR	0,43	0,17	3	0.17	82.0	0.17	9.5	0.17
	0.15	0.31	0.14	86.0	60.0	Ř	90.0	* 0
PLYSSY BYISSION ASSILUTE ANS EXISTING CONTROL DEVICE AT MCR	~	~	~	~	~	~	~	^
ENISSION OF TSP. MOX MOUNTY MY EXISTING CATRL AT MCR.	8		, <u>6</u>	9	2	9	9	9
UNCONTROLLED FLYBSH ENMISSION, INDX HOUSEY AT MCR		3	3 2 5 –	72.2	2	3 6	d =	8 8 3 0
COMPASSION OIR BOTE OVEROSE	21.13	55.035	686	8488	7000	67607	10.07	8 6 6
CONGRESTION ATR VILINETPRIC FLOWENTE. INVENOES	17165	14684	18776	2	*/LE	12021		01841
LET FILE BOS BOTE. AMERICA:	2150	2002	1 TO 1	26.00	A PACE	F 62	34.778	71642
NET PLUE 69S VILLIMETRIC PLON. PAEROCE	23662	36.22	22.780	27378	886.2	36	200	, SAS
EMISSION CATR. DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	-	-	3	-	-	} -		3
NEW ENTSSION COMPTO DEVICE REQUIRED 1= YES		• •	• •	• •		٠. ح		• •
SLECTRIC PONER COST FOR FD SYSTEM, AVERAGE	\$ 0.8	\$0.72	9	\$0.76	80.87	7.03	\$0.87	\$ 12 12
ELECTRIC POMER COST FOR 1D SYSTEM, PAERSOE	11.17	8	\$1.83	90.00	9.18	9	96.29	2 2
MISC ELECTRIC POWER COSTS. AVERAGE	2.2	00.00	\$3.10	00.08	3 3	9	3	8 8
SOLID RESIDUE EDIENTED. HOX HOURLY AT MCR	530	618	25	618	2379	618	5	618
ANNUAL LABOR COST. BURDEED	\$339,001	£244.730	\$35,804	2015.405	8377.406	£243.638	\$377.406	824.5.4CB
OPERATORS PER SHIFT	2.3	58:	2.3	.1.	2,31	1.67	2.31	1.67
CONVENTIONAL FLEL COST, AVERGRE	\$110.00	\$157.00	\$102.00	\$143.00	\$106.00	\$149.00	\$106.00	\$148.00
ROF FLEL COST, AVERAGE	8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		\$5.00		\$6.00		\$7.00	
ASH DISPUSAL COST, AVENAGE	\$10.76	\$3.40	\$10.15	\$3.09	\$15.74	\$3. 21	\$23,13	63.19
DPERGTING HRS/YR IN COFINED STEPH SUPPLY RONCE	0629	7862	883	7862	823 3	7862	83	7862
INCHERENTAL HAINTENANCE COST, PANDAL	£26, 523		\$25,086		\$26,031		\$26,348	
ANGILABILITY, FRACTION	0,72	0.9	0.72	0.9	0.72	0.0	0.72	0.9
SANDAL STEAM PRODUCTION, NET	3.88€+11	4. 6SE+11	3.47E+11	4, 34E+11	3. 6AE+11	4. 55E+11	3.616+11	4.528+11
RELATIVE ELECTRIC POWER MANUAL COST	\$37,359	\$5,674	\$36,684	\$5, 998	\$39,742	\$5,805	\$43,590	\$5, 761
ANNUAL CONVENTIONAL FLEE COST	\$694,841	\$1,236,848	\$6.39,052	\$1, 124, 586	\$66A, 612	\$1,170,352	\$663,907	\$1, 161, 479
PANDAL RDF FLEE COST	\$34,336		\$31,633		\$38,383		\$46,011	
ANNUAL PSH DISPOSAL COST	\$67,694	\$25,636	\$63,848	\$24,273	\$99,000	\$25,281	\$145,514	425, 069
CHANDAL MISH DISPOSAL COST	3	\$102, 393	⋧	\$102, 393	3	\$102,393	\$	\$.02,393
FURNICE COLD (MOKING CO 4 SMOKE) IF $= 1$	0		0		0		0	
NEW MOX ENTSOLONG MATE N/ NEW CONTROL DEVICE	1.83		1.82		1.83		1.81	
INCLUDED IN CAPITAL COST								
BANE CAPITAL COST OF STORAGE SUBSYSTEM	\$112, 137		\$106,911		\$116,070		\$124,442	
PRINE CAPITAL COST OF LONG NECHANICAL CONVEYOR	3		9		0		3	
PARE CAPITAL COST OF SHORT MECHANICAL CONVEYOR	3		\$		\$		3	
BARE CAPITAL COST OF ADF DELIVERY SYSTEM	\$98,012		\$92,743		\$95,005		\$9,646	
SARE INCREMENTAL COST OF ASH HANDLING SYSTEM	8		8		\$		2	
, BARE INCREMENTAL CAPITAL COSTS FOR ENISSIONS CONTROL	≆		8		3		3	
SHIPE INCREMENTAL COST FOR BOILER MODIFICATIONS	\$347,993		\$358,249		\$336, 718		\$335, 373	

SOON BEEFFER DEPENDENT BOOKS FORCERS REPRESENT TO SECURE SECURAL SECURIOR S

BANE TOTAL INCREMENTAL CAPITAL COSTS	\$558, 141		\$527,904		\$547,793		\$554, 462	
BUNDONED TOTAL INCREDENTAL CAPITAL COSTS	\$736,746		\$696, 033		\$723,087		\$731,889	
CAPITAL RECOVERY FACTOR	\$6.6	₹ 1.66	\$ 6 6	45.5	9.54	చే లో	45.6 15.0	₹. 10.
CONTRACTIVED COST OF CAPITIFIC	3		3		2		3	
TOTAL DANGER ORM COST	\$1,199,815	\$1,514,008	\$1, 132, 109	\$1.397,338	\$1,205,174	\$1,445,056	\$1, 262, 774	\$1, 435, 347
TOTAL ANNUAL COST INCLUDING COST OF CAPITAL	3	\$1,514,008	3	\$1,397,338	3	\$1,445,056	\$	\$1,435,947
TOTAL COOKT DER MILLION BILL OF STECK	\$ 0.00	\$3.12	\$0.00	\$3.22	\$0.00	\$3.18	\$0.00	\$3,18
SIR (SAVINGS/INVESTIGENT) AT EQUAL PARLIAL STEAM PRODUCTION	0.15		-0.19		9 9		-1.49	
TOTAL DAM COST PER MILLION BTU OF STERM	\$3.09	\$3, 12	\$3,26	53. 22	\$3,31	\$3.18	\$3.50	\$3.18
DAM COSTS FOR PULVERIZER IF NOT RDF BUT CORL USED AS ASF	80.00		80°00		\$0.00		\$0.00	
TONS PER YEAR RDF REQUIRED	17198		15817		19192		23005	

	o-		01		=		감	
CLITTLE Creek Machibinus Base				1			Š	
	Cofifing	Lonvent I ona! Fue!		Conventional	-	Fue!	Cofifing	Fue!
definition								
CURTOR BY TROMSFERED TO STEPH, AND HOURLY, 100% AND LABILLTY	5.65€+07	5.65€+07	5. 74£+07	5.74€+07	5.82E+07	5.82E+07	5. BZE+07	5.828+07
	B. 29£+07		8. 48E+07	8.45€+07	8.64E+07	6.45€+07	8.64€+07	8.45€+07
MOXIMUM TURNDOWN STEAM MOTING, SEAM BTUM	2.01E+07		2.04E+07		2.06E+07	;	2.06E+07	
ROTLES EFFICIENCY AT MCS	0.75		0.76	0.83	0.76	0.83	0.76	3
BOILER EFFICIONOY AT AVERGE OUTPUT	0.69		0.7	0.83	0.7:	0.83	0.71	0.83
MAXIMUM STEAM DENOMO (MSD)	1.506+08	1.506+08	₽-36	1.306+08	1.50£+08	1.500+08	1.500=408	1. 50E+08
DENOTE TO THE SOUTH BY SHERRES	A. 18E+07	6. 795+07	8. 21E+07	6.915+07	8.24E+07	7.00E+07	B. 24E+07	7.00£+07
ADE FLOWARTE, AVERAGE	₹. °		2.33		39.2		2.62	
CONVENTIONAL FLEE INDUT ENTHALPY, AVERAGE	3556	4923	3572	5007	3585	5073	2882	5073
SOLID RESIDUE GENERATED, AMERAGE	1516		1437	Ş	1375	Ĉ	1375	Ĉ
CARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	† .0		0.45	0.17	0.44	0.17	‡	0.17
FLYASH FRACTION OF SOLID RESIDUE, AVERAGE	0.12	₹°0	o. 14 0. 14	₹ ′	0, 15	₹°	0.15	5 , "
FLYASH EMISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT MCR			nu ş	NI S	~ ;	• 8	•	· 8
EMISSION OF TSP, MAX HOURLY IJ/ EXISTING CHTRL AT MCR	80.0		80°	8 8	8 G	8 8	9.5	5 ··
UNCONTROLLED PLYBSH EMMISSION, MAX HOURLY AT MCR	9.7	90.0	:. BC	90.5	1.83	2. 2. 8. 2. 2.	1.83	6.00 7.0023
COMBASTION AIR RATE, ENERGIE	COME/		45/E/	2007	1776	7/6/9	APOCT :	7,670
CIMENSTITUS ATTACKTORY PARAMETER AND THE STATE OF THE STA	10100	1,045	1776	19641	87489	2 X X	874.89	200
ALT FILE DAY WILE, PAYENDER	13000 130000		19//9	26445	1260	2	1782	2 X
MET FLUE GAS VILUETHIC FLUM, AVENUE	987		3063			g -		ę –
ENISSION LANGE DEVICE RESIDED EFFICIENT TEXTS IN DEVICE!		- c	- 0	. c	- 0	. 0	• 0	. 0
MEM EMISSION COMMING DEVICE NEW THEN I'VES OF THE STATE O	\$0.87		\$0.87	\$6.73	\$0.87	\$0.74	\$0.87	\$0.74
FIGURE ONE FOR THE STATE OF BUILDING	\$1.81	90.03	\$1.80	80.00	\$1.79	8 0.00	61.79	80.0
MISC ELECTRIC POWER COSTS. AVERAGE	\$ 3		\$3.53	\$0.00	\$3.20	\$0.00	\$3.20	\$0.0
SOLID RESIDUE GENERATED, MAX HOURLY AT MCR	1600		1505	618	82 1	618	S.	618
SHALLE LABOR COST, BURDENED	\$337,406	\$243	\$337,406	£243, 638	\$337,406	\$243,638	£337,406	\$243,638
OPERATORS PER SHIFT	2.31		2,31	1.67	2.31	1.67	2.31	1.67
CONVENTIONAL FLEL COST, AVERGAE	\$105.00	\$145.00	\$105.00	\$148.00	\$106.00	\$150.00	\$106.00	\$150.00
RDF FLEE, COST, AVERAGE	87.00		8 i	;	\$101.00	3	8 9 9 9	2
ASH DISPOSAL COST, AMERIAGE	\$11.5	_	\$10.8	53.19	\$10.43	7 5 F	2000	23.C3
CAPERATING HAS/YR IN COPINED STEAM SUPPLY RANGE		¥	2 S	X		900/	5 K3	396/
INCREMENTAL MAINTENANCE CLEAT, MARCH.		•	55 C	0	27.0	6	27.0	6
CANALCE CITCHE DECEMBER 110N NET	3.556+11	*	3.61€+11	4.51E+11	3.66€+11	4. 57E+11	3,66€+11	4. 57E+11
RELATIVE ELECTRIC POLER ANNIAL COST	\$41.617		\$33,000	35, 28	\$36,923	\$5,837	636,983	\$5, 837
PANDAL COMPONIONAL FLEL COST	\$659,801	# -	\$662,743	\$1, 161, 261	\$665,122	\$1,176,749	4665 , 122	\$1,176,749
- AMALIAL RISF FLEL COST	\$61,994		\$36,908		\$633, 314		\$316, 739	
ANNUAL ASH DISPOSAL COST	\$72,43P		699'898	\$25,065	\$65, 710	£25, 339	\$65,710	52 , 339
ANNUAL HISM DISPOSAL COST	\$	102,393	9	\$102, 393	3	\$102, 393	3	\$102, 393
FURNIOSE COLD (MPKING CO & SMOKE) IF $= 1$		0	0		0		0 !	
NEW HOX ENISSIONS RATE MY NEW CONTROL DEVICE	1.8	eri	1.82		3.		3	
MATERIAL TOTAL OF CTROOCS SHEET STATE OF THE STATE OF CTROOCS SHEET STATE OF STATE OF CTROOCS SHEET STATE OF ST	A119 A00	e	\$114,188		\$109.411		\$109.411	
BORE COOTTRE COST OF LOWS MEDIANTOR CONVEYOR	3		3		\$		3	
SORE CADITY COST OF SURE MECHONICA CONVEYOR	2		3		\$		3	
BORE CAPITAL COST OF ADE INFRA SYSTEM	\$93,841	-	\$94,637		\$95, 263		195 , 263	
EARE INCREMENTAL COST OF ASH HANDLING SYSTEM	•	0	3		3		2	
BARE INCREMENTAL CAPITAL COSTS FOR EMISSIONS CONTROL	3	0	2		3		3	
. SARE INCREDIENTAL COST FOR BOILER MODIFICATIONS	132,359	σ·	8335, 340		\$337,682		\$337,682	

BANE TOTAL INCREMENTAL CADITAL COSTS	\$546,001		\$544, 165		\$542,356		\$542,356	
BURDENED TOTAL INCREMENTAL CAPITAL COSTS	\$720,721		\$718,296		\$715,910		\$715,910	
CADITAL RECOVERY FACTOR	\$ 6	\$ 6	\$ 6	ភីទ	\$ 6	\$ 6	\$.8	9.5
ANNUALIZED COST OF CAPITAL	3		3		3		3	
TOTAL ANALISE DAM COST	8 1, 179, 196	\$1,415,741	\$1,170,584	\$1,435,724	\$1,764,247		\$1,447,672	\$1,451,62
TOTAL DANGE COST INCLUDING COST OF CAPITAL	2	61, 415, 741	3	\$1, 435, 724	3		3	51,451,65
TOTAL COAT PER MILLION BTU OF STEAM	\$0.00	\$ 3. !9	\$0.00	\$3.18	\$0.00		90.00	\$3.1
SIR (SAVINGS/INVESTHENT) AT EQUAL DANGEL STEAM 2ROLCTION	-0.62		ጺ ዮ		- B. 03		-3.82	
TOTAL DAN COST PER MILLION BTO OF STEAM	\$3.32	\$3 , 19	\$3.24	\$ 3. 18	\$4.8S		\$3,96	\$ 3. 1
OAM COSTS FOR PLUERIZER IF NOT ROF BUT COAL USED AS ASF	€ . 00		\$0.00		80. 00		€0.00	
TONG DER YEAR ADE REDUIRED	20997		18454		16463		16463	

Substitute Attack the Second	127		•		ŭ		91	
ittle Greek Amohibious Base						wel Cost		
	Softfame (Conventional Fuel	RDF C Cofifing	Convent tona: Fue!	RDF Cofifing	Convent I onal Fue I	Cofiting	Convent tonal Fuel
centrior								
	6.08€+07	6. (18£ +07	5,57€+₽	5.575+07	5. B2E+07	5.82€+07	5. B2E+37	5. BZE+07
MER, ABS WAY FOR COFISED CASE (REPATED AT HI VE.DEITY)	9.166+07	8, 45£+07	8.148+07	8. 45€ +∵7	8. 64E+07	8. 45£+07	8.64€+07	8. 45€+07
STATE OF CONTRACT OF STATE OF	/04-9C: 12	, · · · · · · · · · · · · · · · · · · ·	Re •	:0	2. UBE+U?	0.00	70+360-2 25-3	0
FIGURE SECTION FOR CASE OF THE PROPERTY OF THE	S #	. e	7 W	76 S	87.50 27.50	0.83 0.83	 	5, 03 5, 03
ADMINISTRATE STEEDS DESCRIPTION OF STEEDS DE	1.505+08	1.50€+08	305 +08	1.50€+08	1.505+08	1.50€+08	1,500,408	305-08
DE 30 TE	0		8.0		9			
"OTAL FLEE INPUT ENTHALPY, AVERABE	8.046+07	7.31E+07	8.516+07	6. 70E+07	8.245+07	7.00€+07	8.246+07	7,00€+07
RDF FLOWINGTE, AVERGGE	1.28		8.		59.2		2.62	
CONVENTIONAL FUEL INPUT ENTHALPY, AVERAGE	0994	2300	5466	4856	3585	5073	3585	•
SOLIO RESIDUE GENERATED, AVERAGE	æ ;	444	1803	467	1375	ស្និ	1375	
CHARGAN LUNION: OF DALLIN MEDIDAR, THA MUNICIPAL MER	• .	7.5	7:	7.0	; •	2.5	\$ ·	
FLYSH FIRST TUR OF SULLIP RESIDUE, MORRADE STYGEN ENISSEIN DOSTRUITE ONE EVICTING CONTROL DEVICE OF MOR	3.0	5 ,	0.11	ر د د	ر د ر	5 0	ני.	\$ ^
CONTROL OF THE MAN LEGIST AND TAXABLE CONTROL CONTROL OF MAN	9	9	9	9	• & •	9	9	, S
ACCUTACULED FLYBSH EMMISSION, MOX HOURLY AT MCR	6:	3 3	3.1.	96.3	1.83	9 9	1.83	
COMPRUSTION ATR PATE, AVERAGE	78041	71017	82611	69059	80045	11679	80045	•
COMBLETTON ATA VOLUMETRIC FLOWRATE, AVERAGE	17342	15782	18358	14460	17786	15106	17788	
WET PLUE GAS ARTE, AVERBASE	84270	75873	91378	63219	87489	72625	81489	
	23119	27997	22972	22652	1/622	26736	17622	26.738
EMISSION CATRL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)			-		-	•••	-	-
NEW EMISSION CONRTOL DEVICE REDUIRED 1= YES	O	0	0	0	0	0	0	0
ELECTRIC POWER COST FOR FO SYSTEM, AVERAGE	\$0.85	\$0.78	8°.3	\$6.73	\$6.87	\$0.74	\$0.87	
ELECTRIC POWER COST FOR 10 SYSTEM, AVERGRE	\$1.73	\$0.00	\$1.87	90°03	\$1.79	\$0.00	\$1.79	
MISC ELECTRIC POWER COSTS, AVERAGE	\$1.74	8 0.00	3.3	80.0	\$3.20	\$ 0.00	\$3.20	•
SOLID RESIDUE GENERATED, MAY HOURLY AT MCR	1121	618	5571	618	62¥1	618	62 1	
PANUAL LABOR COST, BURDED	\$289,685	\$243,638	\$368, 1296	5243, 638	\$337,406	\$243,638	4337,406	8243
	8:	1.67	2.53	1.67	2.31	1.67	E	
JUNNER, JUNNER FUEL LUSS, AMERICAE	\$13/.00	5126 .00	\$/3.00 \$	\$143.00	\$159.00	8. 9. 8.	\$211.00 \$1.00	\$235.00
ACT PURE UNDAY HYBERDE	27.00		8 5	\$	30.0	***	9.54	
HON MANUSAL WOOL, MYSHADE 1058017MS HOCKYD IN THEIRS OFFINE CHOM Y DOWER	94.76	795.37	13.69	70.03	6290	70.03	C - 70 C 2	705.53
	622 063	200/	200	980	4 4 45 W	300	, E	
SOCI DELL'AN EROCTION	25 C	0	26, 500	o c	57,173 07.0	0	0 72	c
NAME STEM PRODUCTION, NET	3.82E+11	4. 78E+11	3,50€+11	4.38E+11	3, 66E+11	4.57E+11	3,665+11	4.57
PELATIVE ELECTRIC POWER PANNING COST	\$27,136	s6 , 098	\$46,665	55, 587	\$36, 923	\$5, 837	136, 923	
ANNUL COMBITIONAL FLEL COST	\$864,619	\$1,229,386	1457,627	\$1, 126, 416	\$997,683	\$1,765,123	\$1,330,245	3
AWALIA, RDF FUEL COST	\$16,050		\$50,971		\$32,925		\$2,93	
ANNUAL ASH DISPOSAL COST	\$46, 93¢	\$26,535	\$66,133	\$24, 313	\$65,710	£25, 339	465,710	£25, 339
SANUAL YSU DISPOSAL COST	3	\$102,393	\$	\$102,393	3	\$102, 393	₽	\$102, 393
FURNACE COLD (MPKING CO & SMOKE) IF = 1	0		Ĵ		0		0	
MEN MOX EMISSIONS ROTE N/ MEN CONTROL DEVICE	1.3		1.76		1.83		1.83	
INCLUDED IN CAPITAL COST								
BANE CAPITAL COST OF STORAGE SUCS. STOR	\$83 , 151		\$128,953		\$109,411		\$109,411	
BARE CAPITY COST OF LONG MECHANICAL CONVEYOR	3		3		3		3	
PARE CRAFFIRE TOBY OF SHORT MECHANICAL CONVEYOR	3		3		3		\$	
EAGNE CONTINE COST OF ROF DELIVERY SYSTEM	\$75, 422		\$108,202		\$95, 263		\$95, 263	
	3 :		3 ∶		3 :		3	
BARE INCREMENTAL CAPITAL COSTS FOR ENISSIONS CONTROL ADDE THEORYGAE OVER FOR DELICATIONS	04		3		\$0 0 \$		04	
פאוער ישראבעראור ריחפי עכא מסורבע איינטיגוסאווסאני	904 °0404		\$16.37		3337, 562		\$33/,686	

POSE TOTAL INCREMENTAL CODITION COSTS	\$504,030		\$567, 130		\$542,356		542356.00	
STATE OF THE PROPERTY OF THE P	\$565, 320		\$748,612		\$715, 910		\$715,910	
CONTRA DEFINE SOUTH	4, 6	\$	\$ 6	3 5.6	\$ 6		なが	₹.6¢
ALL THE COOK OF PARTY	3		3				9	
TOUR CAMEN OF UNITED TO A CONTROL OF THE CONTROL OF	\$1,368,436	_	\$1,037,234	-	\$2,039,997		\$1, 626, 380	\$2, 628, 371
SC TOOL SUITE	3	_	3		£., 039, 997		3	
TOTAL MANUAL CLOST INCLUDING COST OF CARCITIC	06.03		\$0.00	\$3.20	\$4.46		\$0.00	
MINE THE STATE OF	P		8:3				3.65	
DIA (SAVINGS/INVESTIGATO) AT DECRE TAKEN STEEL TO TOTAL TOTA	\$3.32	\$3, 15	% ₩		94.46	\$5. 00	\$2. 00	
CITY TOWN ON THE THE TOWN OF T	90.0		\$0. 00			30°0 ≴	\$ 0.0€	
TOWN DED VEDRA BENEFIT OF THE PROPERTY OF THE	8065		25485			16463	16463	
25								

Paralle State Control of the Control	17		81		13		93	
Little Oreev Pachiblous Base	MSW Disposal				Ash Disposal			
		Conventional Fue:	Sofiting	Conventional Fuel	Cofifine	Conventional Fue:	Se 25.	Conventional Fue:
on the formal definition of the formal definit		į	,	i	.	į		;
THE PARTY OF THE PROPERTY OF THE PARTY OF TH	5.825+67	5.825+07	5.825+07	5.825.07	5,825+07	5. B.F.07	5. 825+07	5, 835+07
MCA, ABS MAX FOR COFTRED DASE (RESAITED AT ALL VELDCTTY)	8. 645+07	8. 45E+07	3.64€+07	9. 45£+07	8. 64E+(17	8, 455 +07	8. 64E+07	B. 45E+07
	C. (SE+07		2.066+07		₹. 0 6€ +07		2.065+07	
BOW LB BUILTING BE LONGITUDE AND A CONTRACT OF THE CONTRACT OF	£.		92.30	83	76	0.83	97.0	5.83
BUTLEY EFFTDTENCY AT AMERGE OUTPLT	17.73	0.83	u, 71	0.83	69.0	ુ છ	99∵	
MAXIMUM STEAM DEMOND (MSD)	1. SOE+UB	1.50€+08	1,50€+08	1.505+08	1.505+08	1.50€+06	1.50€+08	2.5
DEPOTE	0		0		0		0	
TOTAL FUEL INDUT ENTHALPY, AVERAGE	8.245+07	7.00E+07	8.245+07	7.00E+07	8.356-67	7.00E+07	8.515+07	7.00E+07
ROPE FILENOSTE, PARENCES	3 k	į	38 ; ~:		98 :		2.7	
CONVENTIONAL FUEL INDUT ENTHANCE OF AVERABLE		2/05 F	3565	5073 F	3648	5073	3702	• •
DULIO RESIDUE DESENHIED, HVERNORE PORISE PONTENT OF COURS DECINE MOY WASK VIOLAND	C/c:	. c	5/5: 44 0	g S	14/6	ទ្ធ ទួ	250	
CHOCK CATTON OF COURT RECIDENT THE CONTROL OF COURT	3 0	; ,5		. *	\$. c	7 6	0 G	7.0
ELYASH EMISSION ABSOLUTE ANS EXISTING CONTROL DEVICE AT MCR	2		3 ~	, ~	3	ب م	3	
EMISSION OF 15P, MAX HOURLY W/ EXISTING CNTR. AT MOR	0.05	8.0	90.0	80.0	ં	, 90 90	9.0	رى ئ
UNCONTROLLED FLYASH EMMISSION, MOX HOURLY AT MCR	1.83	90.5	1.83	% 90.%	1.83	98	1.83	
COMBLSTION AIR RATE, AVERAGE	80045	11619	80045	11619	61470	11619	95926	¥
COMBUSTION AIR VOLLIMETRIC FLOWRATE, AVERAGE	17788	15106	17786	15106	18104	15106	16371	
HET FLUE BAS HATE, AVERAGE	67489	72625	87489	72625	₩8974	78625	90225	
HET FLUE GAS VOLUMETRIC FLOH, AVERAGE	17622	26738	17625	26.738	22971	26798	1,652	26798
EMISSION CMPR. DEVICE ASSUMED EFFICIONCY (EXISTING DEVICE)	-			-	-		-	
VEW EMISSION CONRTOL DEVICE REQUIRED 1= YES	0	િ	0	0	0	0	9	
ELECTRIC ACKER COST FOR FO SYSTEM, AVERAGE	\$6.87	\$0.74	\$0.87	\$0.74	\$0.89	\$ 0.74	8°.08	
ELECTRIC POWER COST FOR 1D SYSTEM, AVERGREE	61.79	9.03 3.03	\$1.79	80.0 9	81.82	3 .	\$1.85	
MISC ELECTRIC PURER CUSTS, AVENORED	5.5 5.5 5.5	80.08 (1)	8	00°0	52.23	80°9	8.5	•
SULLID RESIDUE SEMENHER, THAT MUMET HI THE	(C) 1	618	19C	919	S 100	618		
HANNEL LYBUR LABY, BUNDENELL TOCOGTOPS DED SAITET	32/, 40 	545, 538 1. 52	374./228 2.5.0	9C43, 030	337,400	8C4.5.458	833/, 4UB	7
CARCATTONIC FORCE CARCACAC	10 10 10 10 10 10 10 10 10 10 10 10 10 1	6	30.00	٠٠٠ الله الله الله الله الله الله الله ا	10.0	/4:	16.5	/3:
JONEAN TURNE, FUEL LUCK, HVERGRE.	3.05.00 \$5.00	SO 1001	\$106.00	\$150.00	\$106.90 \$5.00	\$180.98	\$103.00 \$6.80	20.00
ASH DISPOSAL COST. AVERAGE	\$10.45	\$3.23	3 6 6	\$3.23	21.5.7	3	3 2 2	*
OPERATING HRS/YR IN CONTINED STEAM SUPPLY RANGE	9623	7862	823	7862	823	7862	063	
INCREMENTAL MAINTENANCE COST, PANJAL	\$25,773		\$25,773		\$25,809		\$25,833	
PV91LABILITY, FRACTION	0.72	0.9	0.72	0.9	0.72	6.0	0.72	0.9
SHANDAL STEAM SAUDUCTION, NET	3.66€+11	4. 57E+11	3.66€+11	4.57E+11	3.66E+11	4.57E+11	3.66€+11	4
PELATIVE ELECTRIC POLER ANNUR. COST	536, 323	\$5, 837	£36, 923	\$5,837	\$37,516	5 5, 837	\$38,016	
HANDAL CONVENTIONAL FLEEL COST.	\$655,122 \$33,635	\$1,176,749	\$665,122	\$1, 176, 749	\$676,955	\$1,176,749	\$686,931	\$1,176,749
SAME OF THE CASE	CXC, 3C4	ş	CX X	30			28.5	
AND TOTAL TOTAL COST	01/ *c9	S i	665, 710	8	\$4.88	638, 107	\$148,390	6 %, 798
HANDEL HOW ULDSTOOM (LIDE)	≩ <	\$154,590	3	×04, /86	\$ √	\$102, 393	O \$	\$102,393
TOWNERS BUILDING FOR A SHOWEN OF THE TOWNERS AND THE TOWNERS A	-		۵ ر		٥ .		0 (
INCLUDED IN CAPITAL COST	3		3.		₹:		 	
SAPE CAPITAL COST OF STORGET SUSC STEW	\$109.411		119 411		\$110.167		4110 747	
BARE CAPITRL COST OF LONG MECHANICAL CONVEYOR	3		9		3		3	
SARE CAPTIAL COST OF SHORT MEDIAMICAL CONVEYOR	3		: ;		: 3		2	
AGISAS ANAINE SO SOU THINGE BEEN SASIEN	\$95,363		\$5. 263		\$95.263		. X . 36	
SARE INCREMENTAL COST OF ASH HANDLING SYSTEM	3		3		3		3	
PAPE INCREMENTAL CAPITAL COSTS FOR EMISSIONS CONTROL	3		3		9		\$	
SAPE INCREMENTAL DOST FOR BOILER MODIFICATIONS	\$237,682		\$337,682		\$337,682		\$337,682	

فكعددا

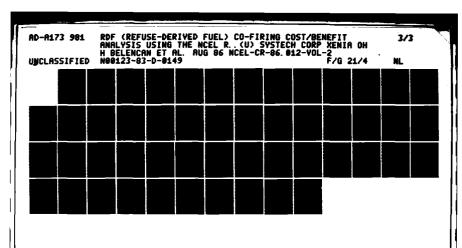
BARE TOTAL INCREMENTAL CAPITAL COSTS	542,356.00		542356.00		543111.00		543742.00	
BURGOED TOTAL INCREDENTAL CAPITIAL COSTS	\$715, 910		\$715,910		\$716,907		\$717,739	
CAPITAL RECOVERY FACTOR	\$3.5	\$3.54	\$9.8¢	₹ 8.5 ‡	6 9.54	25°52	\$9.54	\$ 65
ANALOG LIED COST OF CAPITAL	0		0		3		0	
TOTAL BANKUAL DBM COST	\$1, 163,858	\$1,451,622	\$1, 164, 858	•	\$1,216,690	\$1,464,330	\$1,270,586	\$1,477,02
TOTAL ANNUAL COST INCLUDING COST OF CAPITAL	9	\$1,451,622	3	_	3	\$1,464,330	3	\$1.477.12
TOTAL COOFT PER MILLION RTS OF STEPH	\$0.00	\$3.17	\$0.00		\$0.00	\$ 3.20	\$0.00	5 3.23
SIR (SAVINGS/INVESTIRENT) AT EQUAL HANDAL STEAM PRODUCTION	-0.03		0.03		O.60		-1.18	
TOTAL OBM COST DER MILLION RTJ OF STEOM	\$3.18	\$3.17	\$3, 19		\$3.32	\$3.20	\$3.47	\$3,23
384 COSTS 404 04LVERIZER IF NOT 40F RUT CORL 1550 AS ASF	\$ 0.00		9€. 00		\$0.00		56. 00	
TONS DEA YEAR ADE REDUINED	16463		16463		16755		17002	

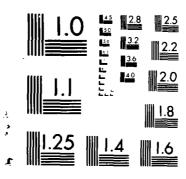
Summary of Sensitivity Analysis	æ	Sens 21:SIR w/ credit	medit	Sens 22:51R m/ credit	' credit	Sens 23:51R w/ credat	ı/ credit
Little Creek Amphibious Base	æ	Actual Most s	1		1000	1001 + 1007 1007	
	3		onventional Fue!	_	Fue!	Cofifing	Fue!
definition	UNITS		į		į		
ENTHALLY TRONSFERED TO STEPH, ANG CURLY, 100% AND LABILLITY	HUTE	5.825+07	5.82€+07	5.825+07	5.825+07	5.825+07	5.825+07
MCR. ABS WAY FOR COPINED CASE (NEWFOTED AT HI VELOCITY)	BTUH	8. 64E+07	8. 455. +07	8. 64E+07	8. 45€+07	8. 64E+07	
MOXIMUM TURNOOMN STEAM RATING, SEAM BTUH	HUTE	2.06E+07		2,06£+07		2.065+07	
BOILER EFFICIENCY AT MCR	NO.	0.76	0.83	0.76	0.83	0.76	0.83
BOILER EFFICIENCY AT AVERBE OUTPUT	NO.	0.71	0.83	0.71	0. 83	0.71	0.63
MOXIMUM STEAM DENOMO (MSD)	BTUH	1.50€+08	1.50€+08	1,506+08	1.50€+08	1.50€+08	1.50€+08
DEBOTE THAT COMMENT AND COMMENT	NOVE	0 (0)		0 0	.00	0	
TOTAL TIME TARGET CATALITY, MICHAEL CO.	5 2	/0.50 c	/· WC+2/	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	, we so	0.5 c2 c	/• me.u/
CONTROL OF THE PROPERTY OF THE	97/0	, X	2033	ž		7 ×	55.53
SOLID RESIDE EDERATED, AVERAGE	¥/97	12.5	ş Ş	3 E	ž Ž	1375	Š Ž
CARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	MONE	÷.	0.17	\$	0.17	3.0	0.17
FLYAGH FRACTION OF SOLID RESIDUE, AVERAGE	30 k	0.15	\$ ·0	0.15	\$ °0	0.15	₹. 0
FLYKSH EMISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT MCR	E / HB	~	۲	~	~	~	~
EMISSION OF 159, MAX HOURLY 4// EXISTING CNTRL AT NOR	UB/MABTU	ુ જ	9. 8	90.0	90.0	90.0	o. 8
UNCONTROLLED FLYRSH EMISSION, HAX HOURLY AT HCR	LB/MBTU	1.83	2.06	3.	50 S	 83.:	2.06
CONBUSTION AIR MATE, AMENDRE	CB/HB	80045	17873	80043	11619	80045	11619
COMBLISTION ATA VILLINETRIC FLOWRATE, AMERICAE	ē	17768	15106	17788	12106	17788	12106
HET FLUE GAG HOTE, AMERICA	# (P)	87489	2	87469	28.5 C. S.	87489	S2 .
HET FLUE GAS VOLUMETRIC FLON, AMENGRE	ē.	162	8678	1652	86. 28.	1622	8 2.
ENISSION DATAL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	¥ :		-	- 1	-		
MEN EMISSION CONTINUED REMOVED 14 YES	5	0 :	0 ;	o ;	0 ;	0 :	° ;
ELECTRIC PUREN LIBOR FUR FU STRING, APPROXIMATE AND	# / H	W. B.	* O	, e.	* O		7 3
ELECTRIC PUREN LIST FUR IN STRICT, MEMBER	¥.	F. 73	3 3	67:18	3 3	2.2	8 8
ALSO, ELECTRIC POWER USES, WEIGHT OF MYS	gr/ a -	2 2	8.8	24.50 14.30	9.7	2 2 2	3.5
CALLED ACCIONE MORE REPORTS TOWARD IN THE	E 92	504 626	870 CFG	534 124	010	201 1.00	979 (104
necessaries are suita	87.18 BON / CUTE	97,00	27	12 c	20,450	04. 	2013, E30
CHARLEST THE STATE OF BOOK	gr/ •	10.5	à 5	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	, e		(a. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.
THE FIRE COST. APPROVE	E/*	8 8	3	8	37.76	8.5	3
AGN DISPOSAL COST. AVENGE	¥/×	\$10.45	\$3.23	\$10.45	\$3.23	\$10.45	\$3.23
DREPATING HAS/YR IN COPINED STEAM SUPPLY NAMES	50.05	83	7862	823	2862	83	7862
INCREMENTAL INSTITUTIONALE COST, PANLIA	\$/YR	17,00		\$55,773		\$25,773	•
AVAILABILITY, FRACTION	NO.	0.72	0.9	0.72	0.9	0.72	6.0
ANDLY, STEAM PRODUCTION, NET	2	3.66E+11	4.57E+11	3,66€+11	4.57E+11	3.66€+11	4. 57E+11
PELATIVE FLECTRIC POLER PHANAL COST	\$ /YR	5 4, 93	\$5, B.CT	18 , 28	85, 837	£36,923	\$5, 837
PANIAL COMPORTIONAL FIEL COST	S/YR	221 153	\$1,176,749	\$65,122	\$1, 176, 749	\$665,122	\$1,176,749
HANCEL AND FIEL US!	\$/YR	S. S.	;	23, 23		8 8 8	
HANNE ASH DISPLEMENT COST	\$/YR	\$65,710	S.	965, 710	Ž Š	865, 710	\$ 2,33
CHARLE ASK DISABAL (US)	¥ .	≆ '	\$102, 393	3 '	\$153,590	≩ '	\$204, 786
FUNDATE LILLY (PARTING CO.) SAUCE IT A 1		0 (٥ ;		0	
THE THE CALCADING THE ENTRY CONTINUE DEVICES IN THE CALCADING DEVICES	LB/MBTU	3.		1. ES		1.43	
CARE CASTIN CHEST OF CHANGE CHOCKETEN	•	24 80		9,7			
ROOF COULD CREATE THE REPORTED CONTRACTOR	• •	5		119,014		114,6014	
ROOF COUNTY COUNTY CHANGE REPORTED CONTENTS		8 8		8 8		8 8	
ROOF CAST OF COURT OF SHEET THE PROPERTY CAST OF TH	٠.	,		\$ 50 80 80 80 80 80 80 80 80 80 80 80 80 80		2	
BARE INCIDENTIAL COST OF ASH HARDLING SYSTEM		2 S		28		29,00	
BARE INCREDICAL CAPITOR CYSTS FIRE FRICKSITHE CYNTRO		3		2 \$		3 \$	
BARE INCROMENTAL COST FOR BOILER MODIFICATIONS		£37, 68º		\$137.68P		\$3.77.8AP	
				-		-	

ENTER THE PROPERTY OF THE PROP

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N. W. M. Rescension of the second

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

	8°	\$1,451,62	*	83.11		
5542, 356 \$715, 910	\$ °	91, 163, 658 80	3 5	\$3, 18 80,00	16463	
	Š Š	51, 451, 622 51, 451, 622	33	63, 17		
8542, 336 8715, 910	A °	11, 163, 858	\$ 8	\$3.18 \$0.00	16463	0.69
ć	K K	51,451,622 41,451,622	3	13.17		
1542, 256 1715, 910	t o	11, 164, 624 80	₽ 3.	\$3.18 \$0.00	16463 177, 453	9. 33 33
5		8/ X8		\$/ Je@ TU \$/YR	8/YR	9
BARE TOTAL INCIDENTAL CARITAL COSTS BURGOED TOTAL INCIDENTAL CARITAL COSTS CARITAL RECOVERY FACTOR	CHANTAL IZED COST OF CONTROL	TOTAL ANNUAL COST INCLUDING COST OF CAPITAL THIRD AND COST MILLIAN ONLY OF CAPITAL	SIR (SWINGSLIMESTICATE) AT EDIN, MOUNT STEPS PRODUCTION	TUTNE, CAN CLUST RER MILLION BITLOS STEEM CHAT COST FOR PALLESTER IS NOT ROF BUT CORE LISED AS REST THE REAL WAYS AND PARLESTER IS	Avoided INSA disposal cost	SIN m/disposal credit

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T REACCESSEE SUSSIDERSM PARTICIPAL

Summary of Sensitivity Analysis Little Greek Amonibious Base	ധ മ	Conventional Fuel Down 25%	. an	Excess air		Best Case		Best Case		Best Case	
		302	Convertional		Convert: [ma]		Convent (ena)	<u>ئ</u>	Conventional		Conventional
00,:11,:0n	USA 275	out.i.ing	1401	54120		21	3	gut a tue?	an	juit 1 : 100	
WITH BY TRANSFERED TO STEPAL RANG HOURLY. THE RANGE BRITTLE	BTCH.	5.825+07	5.82E+07	5.515+07	F. () 4 () 1 () 1 () 1 () 1 () 1 () 1 () 1	; +3;78° 19	() 43/8 9 () 43/8 9	5.335+67	6. 31F+07	5,7;5+07	5, 716+07
MCR, ABS MAX FOR COFIRED CASE (REPATED AT H. VELUCITY)	#JTB	8.64E+07	8. 45E+07	8. 03E +07	8.38€+07	3, 03€+07	8.526+07	8,41€+07	8. 45E+07	5.4.5.07	8. 45€+07
MPXIMEN TURNDOWN STEAM ROTING, SERV RTCH	FTUF	3.06E+07		2.048+07		2.02E+07		10+3(n)			
BOLLER SFFLDIENCY AT MCR	NONE	0,76	0.63	0.76	2.8℃	ં	, <u>B</u> 4	ř:		¥ .	S 65
BOLLER EFFICIENCY AT AVERBE OUTS."	NONE	0.7:	0.83	0.7	સ જ	0.69	0.8 4	93 .∵	. 8 .	9:	0.83
MAXINGM STEAM DEMAND (MSD)	哥	1. 50£+08	1.50€+08	1.50€+08	1.50€+08	1.50€+08	1.50€+08	1.50€+08	1, 50€+08	1.50€+0€	1.506+08
DERBTE	NO.	0		₹ 000		0		0		9	
TOTAL FLIEL INPLIT ENTHALPY, AVERAGE	BT(#	8.245+07	7.00€+07	7.326+07	6.69€+07	9.89€+07	8.14€+07	3. 31£+07	7.59€+07	8. 54E+07	6.87E+07
RDF FLOWRATE, AVERAGE	₹	ટક સ્		2.51		4: 15		98 ::		3.55	
CONVENTIONAL FUEL INPUT ENTHALPY, AVERAGE	B/HR	3265	573 5	3446	20 48 4 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	2866	38 3 38 3	5692	5503	2476	1764
SOLID RESIDUE BENERALLO, HYERRIE	E 14	C/21	Ç ;	\ c c.	3 :	C/8!	\$ 5	8 5	ig !	3/:	<u> </u>
CAMBON CONTROL OF SOLLD RESIDER, MAI HOURLY HI MUN	ğ	4 •	7.0	* :	/ ² /		0.5	9 0	0.17	.	` *
FLINSH FINELLIAN OF BULLU MESTING, AVENUAGE Styles chieston paschliff out Evisting Charles Davice of Mes	g7/6	; ;	\$ °	<u>.</u>	8 °	2 ^	, °	y	۶, °	9: 10 0: 10	۲, °
FRIEGICA OF TSD. MON HERBY M. FYISTING CONTROL DEVICE TO THE	B/MMPTII	% °	9	یم ہ خ	900	ن اه	1 (2) d	1 <u>2</u> 2	000	, 9	3
SOM TO YEAR MORE SELECTION. MOTOSTER SELECTION. SOME TO SELECTION.	BANKETI.	1.83	9 3 3	3	12.3	100	98	90	8		963
COMBUSTION AIR MATE, AVERAGE	B/HR	80045	11619	82691	84869	1111	7306:	36335	73736	823	99999
COMBUSTION AIR VOLUMETRIC FLOWRATE, AVERAGE	HQ.	17788	15106	18376	15522	19728	16236	20087	16.386	18429	14818
WET PLUE BAS BATE, DAERAGE	18/H8	87489	72625	83628	74290	80086	78463	99053	87787	90818	71243
WET PLUE 6AS VOLUMETRIC PLON, AVERAGE	ACFI	22971	26.738	22780	27378	23862	28994	27894	53063	22813	26.288
EMISSION CNITR, DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	NO.					••		••	••	-	
WEW EMISSION CONATOL DEVICE REQUIRED 1= YES	NON	0	0	Ü	0		5	3	ņ	0	0
ELECTRIC POWER COST FOR FD SYSTEM, AVERAGE	\$/HR	\$6.87	\$0.74	%.3€	5 0, 76	£.3	ક ક	\$6.33	80.8 :	F 9;	\$6.73
ELECTRIC POWER COST FOR 10 SYSTEM, AVERAGE	8/HB	K.18	\$0.0	\$1.83	8 0.00	£. %	80.3 4	\$2.24	80. 08	\$1.85	8 0.00
MIST ELECTRIC POWER COSTS, INVERSOR	#/ \$	2.3 2.3	90.0g	\$3. 10	90.0g	# } \$	06.0 8	¥ ;	80.08	2. 16	80.0g
SALID RESIDUE BENERATED, WAT MUNICY HI MUN	E/H		618	345	618	37.	618	1618	618	1618	618
	S. NO / NO	2 0	27	7	37	3 3 3	2 5	200,000	27.	300,000	000
CONVENTIONAL FUEL COST, AVERGRE	- E-/-	\$79.06 20.06	\$112.00	8.08.00	00:4:4 00:64:4	20°693 \$	80 : 90° (80° (80° (80° (80° (80° (80° (80° (8	30.53	6 8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8
ROF FUEL COST, RMERGGE	S/HR	55. 80		85.8		88.00		\$6. 00		\$7.00	
ASH DISPUSAL COST, AMERIAGE	\$/#¥	\$10.45	\$3.23	\$10.15	\$3.09	\$14.24	\$3.75	\$13.64	\$3.50	\$12.35	\$3.17
OPERATING HRS/YR IN COFIRED STEAM SUPPLY RANGE	HOURS	96.73 75	7862	06.79 75.79	786.	96. 3	7862	86 3	7862	653 633	7865
INCREMENTAL MAINTENANCE COST, ANNUAL	\$/YR	£5 , 73		\$25,0 8 6		427,675		\$26, 304		\$26, 336	
AMAILABILITY, FRACTION	W.	0.72	0.3	0.72	0.9	0.72	0.9	0.72	6. 0	6.75	6.9
ANNUAL STEAM PRODUCTION, NET	BT _U	3.66€+11	4.57E+11	3. 47€+11	A. 34E+11	£.28€+11	5.38€+11	3.97£+11	4 . 3€+11	3.596+::	4.498+1.
RELATIVE ELECTRIC PUMER HANDIR CUST	\$/YR	58, 983	\$5,837	\$ 55 Kg	55,998	50, 126	\$6,273	624,848	*	843,524	\$5,726
MANUAL LUMVENITURAL FUEL LUBI	8/4K	8/2, K	1961, V64	20,55	\$1, 1c4, 366	51,064,350	£, 75, 165	\$1,001,463	15' 275' 831	\$918, 781	45. 308, 704
AND TO THE LESS	#/#	S i	9,6	33,124		Cation in	5	08 845 000		*	
HANDLE HOW DISPLOYED LOST	¥ / ¥	363, /10		86.4.986 8.0.4.086	£(4, 2/3	863, 338 4	23,518	818,4818	: X / X :	्र े ।	454, 916 304, 366
FINANCE OF A RECEIVE OF STREET	4	2	\$10C, 333	2 <	\$10C, 333		90/ 'MO	2 °	\$C)4. (86	2	96/ *NO
SCINCE TO THE PROPERTY OF THE	I BANKETI	-		9		-		> q		> ca	
INCLUDED IN CAPITAL COST		3		¥.		70:		9		0:1	
BARE CAPITAL CIST OF STURBEE SUBSYSTEM	-	\$109.411		\$106.911		4125, 234		\$122,331		\$123,013	
BARE CARITRE COST OF LONG MECHANICAL CONVEYOR		9		3		9		2		•	
BARE CARLITAL COST OF SHOR" MECHANICIAL CONVEYOR	•	9		3		3		: a		. S	
BORE CAPITAL COST OF 90F DELIVERY SYSTEM	•	\$95,263		\$92, 743		\$112,692		\$109,540		J. 901	
BARE INCREMENTAL COST OF ASH HANDLING SYSTEM	•	3		\$		3		3		3	
BARE INCREMENTAL CARITAL COSTS FOR EMISSIONS CONTROL	•	\$		•		\$		¥		2	
BARE INCREMENTAL COST FOR BOILER MODIFICATIONS	•	\$337,682		\$328,249		8344,465		\$334,287		. 82° 58°,	

Essent responde acomorae acomorae. Somewalling commence especial indication produced parameter parame

BANE TOTAL INCREDIENTAL CAPITAL COSTS	•	\$542,356		\$527,904		\$582, 391		\$566,158		\$566, 845	
BURDEED TOTAL INCREDIENTAL (1997) AL CITETS	•	\$715, 910		\$696, 833		\$768, 756		\$747,329		\$748,236	
CAPITAL RECOVERY FACTOR	ğ	₫. 66	おが	ъ. Б	\$	₹ 1.66	3 5.66	ห์	₹,6	¥.6	3 .6
CHANGE 17ED COST OF CAPITAL	8/YR	0		0		0		C		0	
FOTAL HANGAL OBN COST	8/YR	\$997,014	_	\$1, 132, 109	\$1,397,338	\$1,653,350	-	\$1,580,302		\$1,484,372	
TOTAL DANNIAL COST INCLUDING COST OF CAPITAL	\$/YR	3	-	9	\$1,397,338	\$		3	-	\$	
TOTAL COST DER MILLION BTU OF STEAM	\$/MBTU	3	.2	\$	ß	3	*	3	9	3	3
SIR (SAVINGS/INVESTMENT) AT EQUAL ANNUAL STEAM PRODUCTION	NOV	% ♥		. 19 19		3.42		B, 73		7.42	
TOTAL DAM COST PER MILLION BTU OF STEAM	S/MMBTU	\$2.72		\$3,26	\$3.22	\$3.96		£3.38		₩.13	\$5.76
OAM COSTS FOR PULVERIZER IF NOT RDF BUT COOL, USED AS ASF	\$/YR	90.0¢		\$0.00		\$0.00		\$0. 00		\$0.00	
TONS DER YEAR KOF REQUIRED	7 DY	16463		15817		25912		24400		22386	
Avoided MSW disposal cost	S/YR	\$28,577		\$28, 577		\$79,773		\$79,773		\$79,773	
SIR w/disposal credit	Š	9		0.2		10.41		£.		B.	

Summary of Sensitivity Analysis Little Cheek Hephiblous Base		Best Case		Best Case 85	
			Conventional		Conventiona.
	SV175	Cof: fing	a n-4	Cofifing	, ee
ALTERNATION STATE OF	# []	6, 715 417	7.7.5+07	5,715+07	5,715+67
"CA, ARS MAY FOR COPPINED DASE (REPATED AT 4; VELOCITY)	2 E	8. 41E+07	8. 45E-407	9.41E+07	5, 45E+07
FILE WEST SMILES NEEDEN SEEM FLICE	316	(1, 2)E 4/17	:	2,106+07	
では、10mm では、1	9	2 : 6 6 6		12 to	0.83 0.83
SOLITING STRUCTURE TO MANAGE TO THE MANAGE TO THE MANAGE TO THE MANAGE TO THE STRUCTURE STRUCTUR		1.50F+0A	30.50E-1	/9 °C	20.50 50.40 1.50 1.50
	Ş	0	8	0	3
TOTAL FLEL INDUT ENTHALPY, AVERAGE	BTUH	8. S4E+07	6.87€+07	8, 54E+07	6.87E+07
	¥	3,55			
CONVENTIONAL FLEE INPL' ENTHALPY, AVERAGE	LB/HR	2476	1164	9242	4977
SOLID PESIDUE GENERATED, AMERIAGE	至/A	1705	<u> </u>	302	417
CARBON CONTENT OF SULID RESIDUE, MAI HOURLY AT MCR	9	94.0	0.17	64. 0	0.17
FLYBOR FROM THE SALED RESIDE, WENCHES. SINCE ENTOCION DECINIO ME EVICTIME ANTRO DELLES AT MAS	3 6	9.12	5 , '	0. 12	ನ , '
FLYKOM EMISSIUM MOSLECIE MYG EXISTING CLAMMOL DEVICE HI MCM EMISSIUM NE 150 MOT LANGNY LIZ EYNSTING PATRI DY MYG	TENTRAL .	v 2	u g	v 8	ر د د
CATOLOGICAL OF THE PROPERTY OF	E EVEND TO		કુ <u>કુ</u> કું ત	y a c	¥ ₹ 5 °
COMBASTION ATR RATE, PACERGE	B/HR	*8	66683	883	66683
COMBUSTION AIR VOLUMETRIC FLOWRATE, AVERAGE	5	18429	14818	18429	14818
NET FLUE GAS ARTE, AMERICE	LB/HR	90818	71243	90618	71243
NET PLUE GAS VOLUMETRIC PLON, AVERAGE		22813	36.288	22813	56288
EMISSION LATTE LEVILE MOSUMED EFFICIENCY (EALSTING DEVICE) NEW FRISSION COMPTRE DEVICE REQUIRED IN YES	E G	• •	٦ -	٠, د	→ <
ELECTRIC DOMER COST FOR FD SYSTEM, AVERAGE	₹. >	\$6.91	\$0.73	\$0.91	\$6.73
ELECTRIC POWER COST FOR 1D SYSTEM, PWERGE	\$/HR	\$1.85	_	\$1.65	\$0.00
MISC ELECTRIC PONER COSTS, AVERAGE	\$ /HR	₹. 16	80. 00	\$4.16	\$0. 06
SOLID RESIDUE ESPERATED, MAX HOURLY AT MCR	LB/HR	1618	618	1618	618
FAMILIA (ABOR COST, BUIDDAED	\$/ YR	%	6243, 638	\$368,886	\$243,638
SPECIAL CONTROL OF THE CONTROL OF TH	# N. M.	7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	79.1	2.53 2.53 3.00	/9:1
ADE FUEL COST. AVERAGE	# S	968.00	3	00 99	3
ASH DISPOSAL COST, AVERAGE	₹/	\$12.95	\$3.17	\$12.95	\$3.17
OPERATING HAS/YR IN COFIRED STEAM SUPPLY RANGE	HOURS	9629	7862	9629	7862
INDREMENTAL MAINTENANCE COST, PANUAL	\$/YR	£26, 936		\$26, 936	
AVRILABILITY, FRACTION	MONE	0.72	0.9	0.72	0.9
ANNUAL STEAM PRODUCTION, NET	BTU	3.59€+11	1:+36+:+	3, 59€+11	4.49E+11
RELATIVE ELECTRIC POWER ANNUAL COST	\$/YR	\$43,524	\$5,726	\$43,524	\$5,726
PANCIAL CONVENTIONAL FLEE COST	\$/¥R	\$918, 781	\$2,308,704	\$459,330	\$1,154,352
Š	♣/YR	\$430,698	;	\$430,698	:
HANDEL HER DISPUSAL LIES	\$ /∀R	\$81, 473	424, 916	\$81,473	\$24,916
APPLIAL HISTORY COST	dy/\$	\$	\$204,786	9	\$204,786
FUNCACL COLD (MAXIME COLD SMUKE) IF a 1	9			9	
THE HAY EMISSIONS WHILE W/ MEM CLAYAGE URVICE	18/ #/8 10	B::		90	
INCLUDED IN UPPLINE LIBST	•	60.4			
CONTRACTOR OF THE PROPERTY OF	•	\$163,019		\$123,019	
BARRELLAND, THE LUDGE OF LUDGE MELCHANISTICAL CONTROL OF LANDS AND ACCOUNTS.	. .	Ç ;		* \$	
CAPITAL COST OF SHORT RECORNICAL CONVEYOR	٠.	9		3	
BANG CANTINE LAD OF ACT DELLIVERY SYSTEM	. ·	\$103,540		9103,540	
MARK MURCHOSTAL COST OF AST THREETING STREET	•	2		3	
	•	•		•	

STATES TO SOLUTION AND SOLUTION OF THE SOLUTIO

BANE TOTAL INCREDENTAL CAPITAL COSTS	•	\$566,845		\$566, 845		
BLANDSEN TOTAL INCHEMENTAL CAPITAL COSTS	-	\$748,236		\$748, 236		
CAPITAL RECOVERY FACTOR	¥Q.	\$ or	9.34	≯	đ đ	
APPALIZED COST OF COPITAL	\$/YR	0		ق		
TOTAL HABITAL DIEM COST	£4/\$	\$1,870,299	\$1,870,299 \$2,582,384	\$1, 410, 909	\$2,410,909 \$1,428,632	
TOTAL ANNUAL COST INCLUDING COST OF CAPITAL	8/YR	9	\$0 \$2,582,984	3	\$1,428,632	
TOTAL COAT REP MILLION BTU OF STEAM	S/MMBTU	3	9	3	₹	
SIR (SAVINGS/INVESTMENT) AT EQUAL PANDAL STEAM PRODUCTION	¥Qv	2.5		3,43		
TOTAL DAM COST PER MILLION BTU OF STEAM	S/MBTU	5.2:	\$5. 76	\$3.93	8 €. 18	
CAM COSTS FOR PULVERIZER IF NOT RDF BUT COAL USED AS ASF	\$/YR	\$0.00		\$0.50		
TONG PER YEAR ROF REQUIRED	ğ	22386		38555		
Avoided ASE disposal cost	\$/YR	\$79,773		\$79,773		
SIR w/disposal credit	YOR	3,55		4.4		

Summary of Sensitivity Realysis Cherry Point			Serie A	Stead dead	- .		Sens 2	22 September 200	9DE - 3
• Lable									•
definition	UNITS		COMPORTIONAL	702	CONVENTIONAL	D J	CONVENTIONAL	Æ	CONFENTIONAL
		COFIRING	뎔	COFIRING	ם	COFIRING	덈	COFIRING	덈
ENTHALPY TRONGSTERED TO STEAM, ANG HOURLY, 100% AWAILABILITY	E E	5.09€+07	5.096+07	6.145+07	6.14€+07	6. 50€+07	6. 50£+07	5.146+07	5.146+07
MCR, AUS INDIT FOR COFFIRED CASE (REPORTED AT HI VELOCITY)	BTUH	8.67E+07	7.476+07	8.67E+07	7.47E+07	8.67E+07	7.476+07	8. BBE+07	7.47E+07
MAKINGE TURWOOM STEAM BATING, SEAM BTUH	BTUH	1.986+07		1.986+07		1.98€+07		2.01E+07	
BOLLER EFFICIENCY AT MCR	MONE	0.76	0.82	0.76	8	0.76	0.82	0.77	0,82
BOILER EFFICIENCY AT INVERSE OUTPUT	Š	0. K	o.8	0.77	98 38	0.77	9.0	0.76	0.8
MOLITALIN STEOM DENGMO (MSD)	BTCH	2.2E+08	2. 25E+08	2.256+08	2, 27E +08	2,256+08	2, 24 ± 58	2.25	2.25.408
DEBOTE	ğ	0		٥		•		0	
TOTAL FLEL INNUT ENTHALPY, PACESSEE	BTIE	6. 74 +07	6.20€+07	A. 00F+07	7.485+07	R. 445+07	7.005407	6 74E407	6. 2G+07
ROF PLOWING, PARTINGE	Æ	2.15		10 d		9		78.1	
CONCENTIONS FIRST FACILITY OF CAPROST	B/HD	2749	910	282	200	27.78	7367	3446	100
COLIN DESIDE EXPERDITOR OFFICES	97/61	Ē	4.5	200	ž ×	8 8	e i	G / 6	ថ្មី ន
COMPANY THE THE CONTRACT OF CONTRACT OF THE PART WITH THE VIOLENCE OF THE PART	Š		9	£ 5	3 8	2/6	8 8	10 M	ē
DIVIDED CONTINUE OF SELECTION O	3 5	3 6	5 6	` f	5 6	0.13	S 8	G ;	\$ 8 3 6
CLINEAR FROM LIGHT OF DALING RESIDENCY MYCHORE	200	• (C *	₹ °	, o	₹ °	ς, ·	8. 0	₹ 3
CLINOT CHISSION MORE UP AND CHISTING CURRING DOUGH.	THE PERSON NAMED IN		> <	• 5	.	~ ;	۰,	2	o .
EMISSION OF 15th, MAX HOURS IN EXISTING CATINE, MI ALK			o ;	9	0 ;	90.0	0	9 8	0
UNCONTROLLED FLY6SH EMPISSION, MOT HOMELY AT MCR	B/Med		87 :	8.11	8 2	8	 83:	6.21	1.28
COMBUSTION ALR RATE, PARENCE	#/9T	57618	¥	57.79 9	63915	2063	67657	97. 13.	23486
COMBLISTION AIR VOLUMETRIC FLOWROTE, PARTHEE	ğ	S	343	15183	14203	1601	15035	12785	11866
NET PLUE BAS MATE, AMERICE	¥/9	5.087	36876	75821	29909	79986	72681	1623	57456
NET FLIE GAS VOLUMETRIC FLOM, CHERKOE	Ē	5002	231%	85 15	18613	1692	38.	19708	23429
ENISSION DATAL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)		-		-	-	-	-	•	-
NEW ENISSION CONNTOL DEVICE REQUIRED 1= YES	NO.	0	0	0	0	0	٥	0	•
ELECTRIC POWER COST FOR FD SYSTEM, AVERAGE	\$/HR	3 .60	\$1.47	\$1.90	61. 78	8.8	\$1.86	\$1.60	\$1.49
ELECTRIC POWER COST FOR 10 SYSTEM, AVERAGE	¥√\$	\$3.13	\$0.00	¥.¥	\$0. 00	\$5.01	8 0.08	\$3.08	\$ 0.00
MISC ELECTRIC POWER COSTS, PARENDEE	\$/H	8 6.88	80. 89	\$7.35	\$ 0.0	% ₩	90.0	\$6.14	90.09
SOLID RESIDUE REDEDATED, MAX HOURLY AT NOR	E/E	Ğ	ş	123	6 0 4	<u> </u>	Ş	1161	5
ANNUAL LABOR COST; RURDENED	8/Y8	4314,056	£256, 777	4314,056	£28,77	\$314,056	1226, 777	\$314,056	\$226, 777
OVERBOTORS REA SALFT	HS/NON	2.15	1.33 18.	2.15	<u></u> 18	2.15	: R:	2.15	 8
COMENTIONAL FLEL COST, AVERSE	¥./₹	Ē	\$115	69	\$139	₹ <u>\$</u>	8147	ř.	\$117
NOT FLEL COST, AVENDEE	\$ /HR	3		\$		ä		1	
ASH DISPOSAL COST, AMENDRE	\$/H	3	\$	\$	3	\$	\$	\$	\$
OPERATING HIS/YR IN COFFIED STEAM SUPPLY RONGE	FOURS S	83 34	6 23	8	6628	96.73 73	653	83	8 638
INCREMENTAL HOLVITENMEE COST, AMOUR.	¥	\$2,809		192 'Z3		\$2 \B		55, 73 057, 73	
CARLLABILITY, FRACTION	9	0.72	0. %	o. 72	6. 18.	0.72	0 12	0.72	o. 33
PANCE STEM PRODUCTION, NET	2	3.200€+11	4.220E+11	3.860€+11	5.100E+11	4.090E+11	5.400€+11	3.230€+11	4. 270E+11
PELATIVE ELECTRIC POLES PARIAL COST	\$ ₩	<u>8</u>	\$12,235	\$30° 185	814, 738	3 % ₩2	229 '\$10	\$64 ,002	12,350
AMILIAL COMPONITIONAL PLEIL COST	₩.	₩73,769	\$507,346		\$1,135,735	1592, 547 \$1, 223, 384	11,223,386	#7.7.00	\$967, 151
HANDER FOR FUEL COST	\$ √₩	£2,92		131,947		633, 695		123, 538	
HANCEL REAL DISPLEMENT COST	¥.	8	8	\$	3	\$	\$	\$	\$
APPRICAL IEST DISPOSAL CIET	\$/YR	\$	\$ 3 ,000	3	000 '964	\$	98,000	8	000 16 5
FURNICE COLD (MONTHG CO IL SMONE) IF $= 1$	Ž			•		0		•	
NEW HOT ENISSIONS HATE MY NEW CONTING, DEVICE		3		6. 11		6. 11		8.21	
MANE LAPTING COST OF STORME PLESTSTER	-	\$106, 769		6106,027		\$105,878		\$101,829	
SIGNE CHAPTRIC COST OF LONG MECHANICAL COMMEYOR	•	3		3		3		≩	
SPARE CAPITAL COST OF SHORT MECHANICAL CONNEYOR	•	3		\$		\$		8	
BANK CAROLLA, COST OF ANY DELIVERY SYSTEM	•	182,33		182,331		195, 391		5% 239	
SAME INCREMENTAL COST OF RESPONDED IN STATE OF S		8		8		\$		8	
BARRE INCLUENTIAL CORPUTAL COSTS FOR ENISSIONS CONTROL	-	\$		\$		8		\$	

BAGE INCREMENTAL COST FOR 1501LES MODIFICATIONS		£338, 165		£338, 1655		ध्यक्ष, १६५		6341,305	
DAME TOTAL INCREDIENTAL CARITY, CUSTS		1540, 326		45C 5CC3		424,623		15.09, 3K.	
BEATSOLE TOTAL INCIDENTIA CAPITAL COSTS		\$713,230		\$712,251		\$712,053		\$711,960	
CABITAL MEDINERY FACTOR	8	\$.50 \$.50	\$ 6	\$6 \$6	å, o	1 000	ž,	\$ 6	ž,
CHANGE LIYED COST OF COOLING		8		\$		8		8	
TOTAL CHANGE CAN COST		18 250,615 81	, 196, 348	\$1,030,763	11, 397, 270	\$1,069,495 \$	1, 465, 765	8911,400 8	1,206,279
TITTE CAMER COST INC. LIDITE COST OF COOLTR.		3	196,348	\$	11,397,270	\$	1,465,785	8	1,206,279
TOTAL COST PER MILLION BILL OF STEAM, (INC. cost of capital)		\$0.00	£2.£3	\$0.00	12.74	\$0.00	52.72	\$ 0.0	8 .83
STB (SOUTHES/TWESTHENT) OF EDISC, CHACK STECH PRODUCTION		-0.19		97.°0		B o		8	
THE DAY THE WILL THE BITL OF STEAM		8, % 8	8.8	15.67	15.74 17.74	3	57.58	3	12.13
DAM COSTS FOR PALVERIZER IF NOT ROF BUT CORL LISED AS ASY		90.08		\$0.08		80.08		8 8	
TOS FED FED INCO		13470		15974		16848		11769	
Avoided MSH disposal cost		ď		0.	- 1	ď	2 ms 2	8	306 - 3
מוא אל מואלינים בי לי פניי		!	:						

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Sumary of Sensitivity Realysis Deerly Point		0,	Sms 4	<i>.</i>	Sens 5	Sens 6		1206 v	
• • • • • • • • • • • • • • • • • • • •				Eucess and				RDF percent ash	5
variable definition	IN STIM	ت چ	COMPATIONAL	5	COMENTION	ě	COMPOTIDING	ě	COMPITONAL
	0	COFTRING	田田	뽀	ם	9	뎔	COFTRING	ם
ENTHALPY TRONGSTERED TO STEAM, AND HOLDRLY, 100% AVAILABILLTY	STUH S	5.00£+07	5.025+07	4. 76E+07	4. 76E+07	4. 91E+07	4. 91E+07	5.075+07	5.07.07
HICH, 1865 HAY FOR COFTRED CASE (REPORTED AT HI VELOCITY)		8.40€+07	7.478+07	7.376+07	7.31€+07	7,986+07	7.39€+07	6.61E+07	7.47.607
HOLLINGS TURNOOUN STEEN ROTING, SEEN BITH		1.95E+07		1.946+07		1.96£+07		1.98€+07	
BOILER EFFICIENCY AT MCR	¥Q¢	0. K	0.82	0.7	0.8	0. 75 75.	0. B1	0.76	0.82
BOILER EFFICIENCY AT AMERIC QUIPUT		*	0.82	0.73	9. 0	0.74	0.81	€.0	9. 3
HORITHEM STEAM DENOME (MSD)		2. ZE + OB	2.25£ 48	2.2% ±08	2. 2XE +08	2.2K+08	2.2%±08	2.256+58	2. 22E+58
DESIGNE	ğ	0		0		0		0	
TOTAL FLEE INPUT ENTHALPY, AVERAGE	_	6. 76£+07	6. 12£+07	6. 49€+07	5,925.407	6.616+07	6. OSE +07	6.7E+07	6. 18E+07
NOT PLOMMOTE, CARROLLE	Ē	2.5		2° 50°		2.1		2.5	
CONNECTIONAL FLEE INDUT ENTHALPY, AVERAGE	LB/HR	2736	\$17	\$	030 4	36 92	4110	275	4197
SOLID RESIDUE BENERATED, PAERAGE	# / *	ž	K.	3 4	%	3 2	272	1346	9 /2
CHRECH CONTON OF SOLID RESIDIE, MAY HOURLY AT MOR	ğ	0.2 2	o. 3	S.	o. 3	0.24	0.03	0.13	o. 3
PLYNON FRACTION OF SOLID RESIDIE, AMERICA	ğ	38	8	0. 7I	ю О	0.73	e o	0.41	6.23
FLYABLE ENISSION ABSOLUTE AND EXISTING CONTROL DEVICE AT MCR		∾ :	•	eu ;	0	~	•	~	0
EMISSION OF 155, WAI HOURLY BY EXISTING COUNT, AT MCR		o B	•	9 8	0	ુ જ	0	ଧ ଓ	0
UNCOMPROLLED FLYRSH EMISSION, MOX HOURLY AT NCR	LB/MeB	8	£.	7. 3 8	1.57	3	. .	B .08	8 2.
COMBLISTION AIR NATE, AMERIASE	FB/HB	8	152	64873	59156	61288	56111	23/15	52781
COMPLETION AIR VILINETRIC FLORINTE, ANERGIE	ğ	282	11609	14417	13133	13620	12469	12812	11729
HET FLIE SPS BRITE, AMENDEE		£673	36 130	70679	6236	67411	53549	(2043	56700
HET FLIE BAS VOLUMETRIC FLON, AMERICE	Ē	Ŗ	22863	2112	300	20540	24401	20119	23120
EMISSION CATHE, DEVICE ASSURED EFFICIENCY (EXISTING DEVICE)	3	-		-	-		-	*	
NEW ENISSION CONNITO. DEVICE NEGOTINED 1= YES	Ž	0	0	0	0	0	0	0	0
ELECTRIC POMER COST FOR FD SYSTEM, INCREME	¥/\$	\$ 1.61	\$1.45	\$1.80	51.65	\$1.71	£.38	\$1,60	
ELECTRIC POWER COST FOR 10 SYSTEM, PACHONE	\$ /₩	S S	8 .8	\$3.57	8 0.08	¥ 73	\$ 0.0	£3.14	
MISC ELECTRIC PONER COSTS, PAEROGE	#/ \$	\$7.86	8 .8	3 6.66	\$ 0.00	#6. 76	90.00	\$7.85	90.0
SOLID RESIDUE GENERATED, MAY HOURLY AT MICH	_	ğ	60	1180	6	1711	Ş	12	60
PANLY, LIBER (CIST, BUIGGE)		534,056	£28,11	1310,219	£224,007	\$312,141	825,33	4314,056	£254,771
	TS/NOT	2.15	R	2.12	<u>.</u>	2.14	¥.:	2.15	R
COMPOSTIONAL FUEL COST, AMERICA	¥/s	9.76	\$114	218	\$110	\$74	\$113	Ē	\$115
NOT FIEL COST, PACINGS		ŧ.	;	1		3		8	
NOT DISHORT (US), INVIDEN		2	\$	3	\$	8.0	8 .8	3	8 8
CHEMISTER MOVIE IN CONTRACT SOURCE MANAGEMENT			£	3	653	863 3	86. 28	83	8
INCREMENTAL MAINTENANT. LIDIT HANDA.		8	į	160,091		531, 512	;	KB, 127	;
AMMILIAGILITY, FINCHION DAMIN CTON DOMINITION ACT		7,1606411	C 7000	0. /2 2 900C	9 3 6	0.72	K	0.72	8.5
BEN OTTUE EN ENTRAIN COMES CAMPION CHEST	i	100	4, 1/00411 412-062	6. 3305 v 11	3.300011	47: 300	4. UBOR + 1.)	5.190e-11	4. clue+11
SMELD COMPATIONS FIELD COST	•	6 4/1 6 4/1	11c, USA 10c, USA	(A) (A)	*13,009 *014 136	14, 3K	\$14,336 8024 717	3 6	114 186 4064 700
CHANGE FOR FIRE COST		8		200	2011/100	426 401	11/1		200, 333
PARCEL REN DISTORAL COST		2	8	ş	s	ş \$	S	S. 15.	\$
AMOUNT INCH DISPOSAL COST	8/YR	\$	200	\$	000	3 °	200	2 5	00 3
FURNICE COLD (MOKING CO & SMOKE) IF = 1	Š	•	<u>.</u>	•	-	• •	200 1: 2) } }
NEW YOUR EDITIONS HOTE NA NEW CONTROL DEVICE	LB/MeB	2.5		8		. S		8	
THOUSED IN COPTING COST		:		ł		i S		3	
BARE CAPITAL COST OF STORAGE SUBSYSTEM	•	\$112,683		\$101,346		\$103.948		4113.227	
BARE CAPITAL COST OF LONG MECHANICAL COMMEYOR	•	3		8		3		3	
BARE CAPITAL COST OF SHORT MECHANICAL CONNEYOR	•	\$		8		*		8	
BARE CAPITAL COST OF ADE DELIVERY SYSTEM	•	\$97,286		469, 674		\$22,526		195, 137	
BARE INCREDENTAL CLIST OF ASH HANDLING SYSTEM	•	\$		\$		\$		8	
BANE INCHEDIENTAL CARITAL COSTS FOR EMISSIONS CONTROL	•	\$		\$		\$		\$	

NAE INCIDENTAL 2057 FOR BOILER HODIFICATIONS		139,023		137,536		\$27,439		8337,212	
BANE TOTAL INCIDENTAL CAPITAL CARTS		E\$46, 992		\$506,748		523913		11995	
SUMBLE DE TOTAL INCREDENTAL COPPLIAL COSTS	•	\$714,109		\$671,548		993,1638		\$720, 161	
CODITION RECOVERY FACTOR		\$	\$ 6	\$ °	3 .6	\$6	\$	**	\$
AMMINITED COST OF CAPITAL		\$		\$		8		*	
TOTAL MANLE. DAN COST		18 100,5229	183, 468	1698, 259 S	1,151,612	19 326 806	, 173, 069	1633, 256 11	193, 363
TOTAL ANNUAL COST INCLUDING COST OF CHOTTAL		3	, 183, 468	8	1,151,812	₩ 08	,173,069	18 08	193, 363
TOTAL COST PER MILLION BTU OF STEAM, (Inc. cost of capital)		80 .08	£.8	\$0.00	3 ,	\$0.0	8 3.38	\$0.08	£.5
SIA (SAVINGS/IMESTIGIT) AT EDUAL IMMUAL STEON PRODUCTION		₽		¥, °		(\$0.27)		A, O	
TOTAL OUR COST PER MILLION BTU OF STEAM		\$2,96	% .\$	5.00 5.00	3	ğ	86.5	84 84	4 5
OAM COSTS FOR PALVENIZER IF NOT ROF BUT CORL USED AS AGF		\$0.00		90.08		\$0.0		80.08	
TONG PETA YEAR REVE REQUIRED		<u> </u>		12851		13200		15725	
Avoided MSM disposal cost									
SIR w/disposal credit		æ	Sers 4	on.	Sens 5	Serie 6		7 308	

Summary of Sensitivity Realysis Dierry Point		8 9GS		6 · 905		01 - 903 5		3DG - 11	
4144				- PE				ADF cost	
definition	UNITS	ğ	COMENTIONAL	ğ	COMENTONAL	ğ	COMENTIONAL	ě	CONFOUTIONOL
		COFINE	뎔	COFIRING	<u>a</u>	COFIRING	1 92	COFIRING	9
EMHILPY TRONGSERED TO STEAM, ANG HOURLY, 100% AVAILABILITY	HTUS	\$.00£+07	5. OSE+07	5.05E+07	5.05E+07	4.998+07	4. 99E+07	5.09€+07	5.09E+07
MCR, ABS MAY FOR COFFIRED CASE (NERATED AT HI VELOCITY)	HTE	8.525.407	7.476+07	8. 50E+07	7.47E+07	8.29€+07	7.47€+07	8. 67E+07	7.47E+07
MOXIMUM TURNICOUN STEAM ROTING, SEAM BILLH	HZ.	1.96£+07		1.96£+07		1.946+07		1. 98£+07	
BOILER EFFICIENCY AT MCR	ğ	0. K	0.85	6.73	o. 8.	6.73 57.0	0. 6 2	0.76	0. 8 %
BOILER EFFICIENCY AT AVERGE OUTPUT	9	ر ال	8	S K	2 8	0.74	ay o	S.O.	9 8
MOLITHEM STEEM (SCHOOL) (MSD)	HER	2,276.408	2, 25E+58	2.28E+08	2, 25E+08	2.258.408	2.25E+08	2.28.45	2. 25E
DERIOTE	9	•		0		•		۰	
TOTAL FLEE INDUT ENTHALPY, AVERAGE	HTE HTE	6. 76E+07	7 156+07	6 7A + 67	6. 15E+07	6. 76£+07	6.08E+07	£ 74£ 407	6. 20E+07
ADF FLOWARTE, AMERICE	Ŧ	~		2.41		2.76		2.14	
CONFORTIONAL FLEL INPUT ENTHALPY, PAERAGE	CB/AE		4179	2751	4176	\$£2	द्धाः	2749	4510
SOLID RESIDUE GENERATED, AMERICE	# / P		276	828	375	769	273	411	278
CHARBON CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	ğ	8 0.0	6.0	0.22	6.0	0.2	60.03	2.0	6.3
FLYASH FRACTION OF SOLID RESIDUE, ANEMGE	ğ	S)	£ .	0.68	62.0	9.0	£2 o	0.74	£.
FLYASH ENISSION ABSOLUTE ANS EXISTING CONTROL DEVICE AT MCR	CB/HR	~	•	~	0	~1	0	~	0
ENISSION OF 159, NOX HOURLY N/ EXISTING CYTRL AT NCR		90.0	0	90.0	0	9	0	9.0	0
UNCONTROLLED FLYASH EMPISSION, NOX HOURLY AT NCR	EB/ME	20.00	1.38	20	£.:	7.98	æ:	8, 11	æ:
COMBUSTION AIR RATE, PARTAGE	EN/ED	•,	9353 335 335 335 335 335 335 335 335 335	5765	55215	57716	51969	57618	#83 83
COMBLISTION AIR VOLLMETRIC FLOWANTE, PAERAGE	ğ	12823	11679	12812	11669	12826	11549	1280	1363
HET PLIE BAS HATE, PAEDAGE		64314		64399	35411	98059	25625	5783	26876
HET FLUE BYS VOLUMETRIC FLOW, AMERICE	EQ.	388		3885	23005	302	22765	20019	817
ENISSION DATA, DEVICE ASSUNED EFFICIENCY (EXISTING DEVICE)	90	-	_		-	-	-	-	-
NEW ENISSION CONNTOL DEVICE REQUIRED 1* YES	Ď	0	0	0	0	•	•	•	
ELECTRIC POWER COST FOR FO SYSTEM, PAYEMBE	#/#	11.61	\$1.46	\$1.56	\$1.46	\$1.61	\$1.45	\$1.50	\$1.47
ELECTRIC POWER COST FOR 10 SYSTEM, PACEMBEE	₩/\$	13.17	90.08	71.53	\$0.00	\$3.23	90.00	£3, 13	
MISC ELECTRIC POLER COSTS, AMERICE	\$/\#	19.17	90.08	\$7.61	90.08	. S S.	00	\$6.88	
SOLID RESIDUE GENERATED, INDI HOURLY AT MOR	ANA)	200	60	1334	60 ‡	1430	60 ‡	<u> </u>	60
PANCIAL LOBOR COST, BURDENED	SYYS	\$314,056	\$256,777	\$314,056	£28,77	1314,056	111,552	\$314,056	117,555,771
CHERRITORIS PER SHIFT	HS/NON		-: R:	2.13	.5	2, 15	-: -:	2, 15	- 8:
CONVENTIONAL FLEL COST, PAERGRE	\$/HR	S.	\$115	₹.	\$114	Ē	\$113	57.8	\$115
NOF PLEL COST, AMENDRE	\$/#K	*		\$		*		\$58	
ASH DISTOSAL COST, AMEDIAGE	#V*	\$ 0,00	80.00	\$	8	2	2	2	3
CHESOTING HIS/YR IN COPINED STEEM SUPPLY REMEE	HONE	83	66.28 87.38	953 33	6628	963 3	653	8	833
INCHESTRATION PRINTERFACE COST, PANCIAL	₩.	ž Ž		168 ZZ		18 Z		£2,809	
AMAILABILITY, FRACTION	ğ :	5.75	6 6	o. 72	6 6	0.72	1 5	57.0	\$ 3
MANUL SIBAR PRIBATION, PE		3.160€+11	4. 190E+11	3.176+11	4.19€+11	3.140€+11	4.140€+11	3.200€+11	4.220€+11
PEDATIVE ELECTRIC PURER ANUAL CIST	EV.	867,715	12,13	\$77,914	\$12,125	201,102	\$12,000	\$73,041	
CHANGE CONVENTIONS FUEL CUST	EK/3	27.17	\$20° 30\$	474 , 073	375 '6 16 8	#74,576	122, 228	2473, 769	9527, 346
CAMER AND PUBLICIES	EV.	137,773	:	20, 20°	;	\$34,697		\$40 6 , 286	
HANDE, KON DISPLICATION (ACT)	AYN.	≩ :	3	≩ '	3	3	3		3
CONTRACT TO A CONTRACT OF THE	MA/S	3	000 *6\$	0	98,000	Q	98,000 184,000	2	000 156
CHANGE CALL (MACING CO & SMICE) IF # 1	ž			0		0		0	
NEW MAIN ENTESSIONS MATTE 11/ NEW CONTINUE DEVICE		<u>چ</u>		2		7.93		6	
INCLUSED IN CAPITY CUST									
BANC CHAITRE COST OF STORGER CLASSYSTEM	•	\$121,336		\$111,331		\$116,671		\$106, 769	
BARRE CHRISTIAL CLIST OF LONG MELIANICAL COMPLYOR	-	\$		3		\$		3	
BARE CAPITION COST UP SHOWING COMPANIES COMPANIES	•	\$		3		\$		3	
BANK CHANTING COST OF NOT DELIVERY SYSTEM	•	A 180		\$12,315		93653		182 AS	
PARE INCREMENTAL LIBER OF REAL MADELINE SYSTEM	•	ğ		\$		3		3	
BANE INCHENENTIAL CAPITAL COSTS FOR EMISSIONS CONTROL	•	\$		0		0		•	

BARE THOREPOTAL COST FOR BOTLEN HOUSFICHTONS	•	NUE, MU		635,630		104 'ZIN		\$33, 855		
BARE TUTAL INCREDENTAL CHRITIC COSTS	•	8770A2		2416/3		\$542,927		24028		
BUINDENED TOTAL INCREDENTAL CAPITAL LUSTS	•	11, 157, 655	\$ \$1,157,655	115,611	1715,611	\$716,664	\$716,66A	\$713,230	\$713,230	
COOTING RECOVERS FACTOR	3	\$	\$ 6	\$ 6	\$ 6	\$ 6	\$10	910	910	
RANDALIZED COST OF CAPITAL	8/YR	8		8		•		*		
TOTAL CHALLAL DAM COST	8/VR	1 2/2 / 1968	11, 189, 220	1829,781	11, 186, 434	\$ 787,397	11, 178, 498	\$1.301.962	61. 196. 349	
TOTAL ANNUAL COST INCLUDING COST OF CAPITAL	\$/YR	•	118820	•	1188434	•	1178	•	1196349	
TOTAL COST PER MILLION BTU OF STEAR, (inc. cost of capital)	196/8	8 0.00	2 6.9	90.00	8 .8	80.08	\$6.5	80.08	\$2.83	
STR (SAVINGS/IMESTMENT) AT EQUAL ANNUAL STEON PRODUCTION	ğ	\$.		育		3 3		25		
TOTAL DUN CORT PER HILLION BTU OF STEAM	TOWN/S	50.23	3 .3	3.33 3.43	3 5 93	2.93	ر. چ	₩.07	52.83	
DAM COSTS FOR PALVERIZER IF NOT ROF BUT COR. USED AS ASF	8 // 8	8 0.08		8.8		8.8		80.08		
TONS HER YEAR NOT NEDUTINED	Ē	18867		13161		94571		13470		
Avoided MGH disposal cost										
SIR w/disposal credit		908		6 · 908				11 - 9GS		

resciones booksess sections

Summary of Semastravity Phalysis Cherry Point	US.	Serie 12		Sens 13		Sens 14		25 E	
e (qe tue)				COTITE PETTO	•			COUVENT 100	conventional fuel cost
definition	UNITS	ğ	CONVENTIONAL	SQ.	CONVENTIONAL	₽	COMENTIONAL	ğ	COMENTIONAL
		OF IRING	ם	COFIRING	ם	COFTRING	떕	COFIRING	델
ENTHALPY TRONGSTERED TO STEDRY, AND HOURLY, 100% ANAILLABILITY	BILE.	5.0% +07	5.09€+07	5. 24E+07	5.246+07	\$. 9€ €	4.946+07	5.09€+07	5.09€+07
MICH, PARS MAY FOR COPTINED CASE (REPORTED AT HI VELOCITY)	#JE	8.67E+07	7.47E+07	9.27.407	7.476+07	8.10€+07	7.47E+07	8.67.5+07	7.47E+07
MOXIMUM TURNIDOWN STEAM NOTING, OCTOM BTUH	HU16	286 +07		2,005.407		1.89€+07		1.985+07	
BOILER EFFICIENCY AT MOR	Š	0.76	0. 8 %	0.79	0.82	0.73	0.8	0.76	0.8
BOILER EFFICIENCY AT AVERGE OUTPUT	ğ	6 K	0 86	0.78	8	0.73	0. 18	(C. 0)	
HOLD THEN STEAM DENGINE (NEW)	BTE	2.2K+08	2. 2E 43	2,298.408	2. 25£ ±08	2.24.08	2,25	2,255.40	2.24.408
DEBATE	Ð	•		0		0	!		1
TOTAL FUEL INPUT ENTHALPY, AVERGEE	HTH.	6. 7E+07	6-206-67	S. 75E-507	6. 30£+07	6.745+07	6.025+07	6 74 to	6.20F+07
ROF FLOWRITE, AVERAGE	¥	2.14		1.07		3.21		2.14	
CONFORTIONAL FLEE INPUT ENTHALPY, PAERGEE	\$ /B	2749	4 210	3670	4334	1581	260	2749	010
SOLID RESIDUE GENERATED, AMERICE	SH/KET	17	278	385	287	ß	271	774	
CHRISCH CONTENT OF SOLID RESIDUE, HOX HOURLY AT HCR	NO.	0.23	8.0	0.27	0.03	0.21	8	0.23	8
PLYASH FRACTION OF SOLID RESIDUE, AVERAGE	ğ	0.7	S.	1.12	8.0	. S	80.0	0.74	2
FLYASH EMISSION ABSOLUTE AND EXISTING CONTROL DEVICE AT MCR	LBAHR	~	0	~	0	~	٥	2	0
EMISSION OF TSP, MAX HOURLY MY EXISTING CNITR, AT MCR	B / B	ە. ھ	0	0.06	0	9.0	0	80.0	
ENCONTROLLED FLYRSH EMISSION, NOX HOURLY AT NCR	894/BT	8	£.:	B. 47	89	7.76	. 25	i a	- 28
COMBUSTION AIR MATE, AMERAGE	\$H/#)	57618	£83	37691	24502	57572	51459	47K1A	•
COMBLETTON ATR VOLUMETRIC FLOWRATE, AMERICE	5	1280	1.765	12820	12111	1279	241	12804	
NET PLUE BAS MATE, AMERICE	#\/e)	287	36876	60629	28049	644873	963	K B	
NET FLUE BAS VALUMETRIC FLOW, PAERAGE	ğ	20019	83.83	19361	23874	20763	ē	900	312
BILISSION DIGINE, DEVICE ASSUMED EFFICIBILY (EXISTING DEVICE)	Ž	-		-		-	-		
NEW EMISSION CONSTITUTION DEVICE REQUIRED 1= YES	Ž			. c	. ح	• 6		- <	. c
ELECTRIC POWER COST FOR FD SYSTEM, PAYERORE	E / S	3	24.18	9	۵ ټ	9	> ;		,
ELECTRIC POWER COST FOR 10 SYSTEM, AMERICA	av.	2 - 2	5	20 23	\$ S	3.5	? \$	3 5	
MISC ELECTRIC PARE COSTS. AMERGE	94/	¥ 5	8 8	3 2	3 8	\$ 7 P	8 8	2 2 2	
SOLID RESIDE REPREDITED INCOMENDED Y OF MES	gr/d	Š	8	200	3 8	15.62	3 5	8 (8.8
CANADA COMO CIVIL MEMORITO			£ 4	\$20 C3	1	CIGI	S E	ġ i	\$!
DEBOTISE DEP CALET	ng/aga	00,410) to 2	3'69	// tg	100 500 to 100 t) i	30,4158 31,600	1 10
CONCENTIONAL FIRST CAREBOOK	97.	;	3 :	3 3	3 :	3 1	8 9	0 :	
NOT FIRE COST. INCREASE		2 2	21.2	101	6116	g •	2112	\$113	\$118
ASH DISPOSAL CIVIST. AFRICA		i s	Ş	* \$	•	• •	\$	• ;	,
DECEMBER 1905/VB 19 PRETECT STEAM CHAIN & BOARS		2 5	2 4	3	2 ;	2	2	2	3
INTERPORTED INCIDENCE CARE CARE CARE CARE CARE CARE CARE CA			£	96 S	£	8	8	8	8538
SUCH CONTRACTOR COST, TRUCK	¥ 10	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	į	769,004		830 S		88	
PARADE STEAM PROVINCITION. NET		27.00	0.30	0. /c	CK 10 X	0.76	8 :	0.72	8
PELATIVE ELECTRIC PRIES QUARTE MET			2000	11.00	4. June 11	110011	4. 100c+11		4. ccve+11
PANCEL COMPANIONEL FILE COST	¥ / *	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	201 THE	20 to 100	#16, J63	2318 800e	201,000	180 5/8	27,27
PARISH ROS FIRE COST	80.0	200 000		2,2 483	a year of C	85 572 65 572	1200, 437		91, 435, 013
PARTIE ASS. PISOUSE COST	2		c	1	c	S/SM	c	K e	
COMPLIANCE THE PROPERTY OF THE	* · ·	•	2	> {		> ;	> :	>	<u>.</u> ب
FIREWOOD COLOR AMERICAN COLOR AMERICAN FOR A		₹ ^	200,4	3 °	200.4	₹ 1	000 1	≩ '	.00°. ₹
THE REPORT OF THE PARTY OF THE	2	•		٠ .		0		0	
THE TAIL COLONIA THE COLONIA C		≓ ø		÷ ====================================		7.76			
METAPORE PROBLEM TO THE PROPERTY OF THE PROPER	•	97.0						3	
SUPLINATED TO SECURE SE		60/ 60/14		67/ 50%		\$123, 104		63(06, 769	
		2 9		2 2		3 3		x :	
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を見なる。 1977年 - 1978年	• •	150,57		*/ °/		108,000		<u>.</u>	
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Minutes of the feet and the first the state of the state	•	٥		Þ		9			

DAME INCREMENTAL COST FOR BOILER MADIFICATIONS	•	330165		347066	347066	\$2,60%	22924 540428	330165 540226	
BANE TUTIN, INCHOENTAL CAPITAL CUSTS	1 مي	3404C		52 CY3		\$739,765		\$713,230	
BLODGIED TOTAL INCREDENTAL CHATTAL COSTS		013,617	910	016	\$10	018	\$10	016	0.5
CAPITAL RECOVERY FACTOR		Ş		8		3		\$	
NAMES IN THE COST OF COPITAL	RY/\$	1.055.730	11, 196, 348	\$999, 502	11, 224, 874	\$624,643	1, 169, 156	\$1,157,500	11,675,021
TOTAL SHOULD CHAILDE	8/4		1196.748	•	1224874	•	1169156	0	16/2021
TOTAL PARKAL COST INCLUDING COST OF CAPITAL	TOWN TO THE PERSON TO THE PERS	\$	8	\$0.00	38.38	\$0.00	\$2.85	\$ 0.00	13.97
TOTAL COST PER MILLION BITO OF STEPH, (Inc. cost of capital)		; ;	ļ }	8		0, 79		1.5	
SIR (SAVINGS/INVESTIGNT) OF EIGH, FAMILY, STEAR PALLULLIUM		3 2	8	\$3.03	3. 38.	52.63	£2.85	3.6	13.97
TOTAL OUN CUST PER NILLION BITL OF STEAM		8	ļ	90.08		8 0.0		\$0.0	
OUR COSTS FOR PLANTICER IT RUI HOT BUT COME, USED HIS TONE TOWN TOWN DOWN HOUSE HER PROPERTY.	¥.	13470		6744		\$20,190		\$13,470	
Antided (Might disposal cost SIR w/disposal credit		Sens 12		Sens 13		Sens 14		Sens 15	

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Semany of Semantivity Shalyans Overny Point	Ā	Sens 16		Sens 17		Sens 18		Sens 19	
				MSM disposa	MSM disposal cost (no credit)			Ash disposal cost	1 cost
definition	UNITS	ğ	CONVENTIONOL	702	CONVENTIONS	ğ	CONVENTIONAL	ğ	CONFOTIONAL
	-	COFTRING	F1E	COFIRING	1 10	9	च	9	멸
ENTHALPY TRANSFERED TO STEAM, AND HOURLY, 1005 AVAILABILITY		5.09£+07	5.09€+07	5.09€+07	5.09€+07	5.09E+07	5.09€+07	5.09€+07	5.09€+07
NCCA, ABS MAY FOR COFINED CASE (REPORTED AT HI VELOCITY)		8.67E+07	7.476+07	8.67.6+07	7.47E+07	8.672.407	7.47E+07	6. 67E+07	7.47E+07
MOXIMUM TURNOOMN STEAM ROTING, SEAM BTUM		1.98€+07		1.98€+07		1.986+07		1.90€+07	
BOILER EFFICIENCY AT NCR	NOK	0.76	0.62	0.76	9 3	0.76	0. 8 2	0.76	0.82
BOILER EFFICIENCY AT AMERGE OUTPUT	30	0 K	9 8	0. T	9. 38.	0. K	0. B	0.7	0. 86.
HOXINGH STEAM DENOM (MSD)		2.23E+08	2,25£+08	2.25E+08	2.25E+08	2.22.408	2.25£408	2. 25E+08	2,245
100000	30	0		0		0		0	
TOTAL FLEE INPUT ENTHALPY, AVERGE	HE B	6.75€+07	6, 20€+07	6.73E+07	6.20€+07	6.72€+07	6.20€+07	7.29£+07	6. 20E+07
ADF FLOAMSTE, AVERAGE	Œ	2.14		2.14		2.14		2.31	
CONNENTIONAL FLEE, INNOLT BITHALPY, AMERGE	LB/HR	2749	4210	2749	4210	2749	4210	5863	4210
SOLID RESIDUE GENERATED, AMERAGE	₩/8T	ţ	278	174	278	774	278	1130	278
CARBON CONTENT OF SOLID RESIDLE, MAX HOURLY AT MCR	30	0.23	60.0	0.23	0.09	0.23	0.03	0.43	0.03
FLYGSH FRACTION OF SOLID RESIDUE, AMERICE	NOR	o. 7	6.3	0.7	82.9	0.74	6.23	0.74	6.3
FLYASH ENISSION ABSOLUTE AND EXISTING CONTROL DEVICE AT NCR	LB/HR	~	0	~	0	~	0	~	0
EMISSION OF 159, NOT HOURLY W. EXISTING CHIRL AT NOR	(B/MC)	9. 8	0	9.0	0	9.0	0	90.0	0
UNCONTROLLED FLYRSH DIMISSION, MOX HOURLY AT MCR	LB/MMB	8.1	1.28	99. 11	1.28	8.11	1.28	8.11	1.28
COMBLETTON ALP NOTE, AMERICE	18/HR	57618	£2 3	57618	5294	57618	£284	62231	25.5E
COMBUSTION AIR VOLUMETRIC FLOWROIE, AMERICE	Ē	1280	23/11	12804	11765	12804	11765	13829	11765
NET FLIE BAS MITE, AVENAGE	#V8	5.83	56.876	57873	56876	63875	56876	68706	55.876
NET FLUE GAS VALUMETRIC FLOW, AVERAGE	ē	20019	23152	50019	231%	20019	23192	50019	23192
ENISSION CHINE DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	30	-	-	-	-	-		-	-
NEW EMISSION CONNTOL DEVICE REQUIRED 1= YES	NO.	0	0	0	0	0	0	0	0
ELECTRIC POWER COST FOR FD SYSTEM, AMERICE	\$/H%	\$1. 60	\$1.47	91.60	41.47	\$1.60	\$1.47	\$1.73	\$1.47
ELECTRIC POLER COST FIR 10 SYSTEM, AVERAGE	#//#	\$3 , 13	60. 00	\$3.13	\$0.0	\$3, 13	8 0.00	\$3.36	\$0.0
MISC ELECTRIC POWER COSTS, AVENDEE	#// s	₹ 88	80.08	₩.38	80.00	\$6. ₿8	90.08	\$7.35	\$0.0
SOLID RESIDUE GENERATED, MOX HOUNLY AT MCR	_	Ğ	Ş	<u>13</u>	Ş	Ğ	\$	<u> </u>	60∓
ANNUAL LABOR COST, BURDENED		4314,056	£256,777	4314,056	£28,77	\$314,056	£256,771	\$314,056	EZ58,73
DRESAGTORS ARE SHIFT	H5/N6H	2.15	33	2.15	1.83 83	2.15	. s	2.15	1.55
COMPORTIONAL FLEL COST, AVERBAE	#/#	\$151	£ 231	Ğ	\$115	Ê	\$115	183	\$115
ROF FLEL CUST, AVERAGE	\$/#	+		•		•		'n	
ASH DISPOSAL COST, PAEDAGE	#V#	\$	\$	8	\$	8	3	B	;
OPERATING MISS/YR IN COFFINED STEOM SUPPLY RONGE	HOURS	96 33	8538 8438	86 3	653	86 39	853	83	86 33 33
INCREDENTAL HAINTENENCE COST, ANNAL	₹ /₩	S		32809		808A		33006	
ANGILOBILITY, FRACTION		0,72	ە. گ	0,72	6. 13	0.72	ું જ	0.72	٥. جو
AMALAL STEAM PRODUCTION, NET	~	3.200€+11	4. 220£+11	3.200€+11	4.220€+11	3.200E+11	4.220€+11	3.200€+11	4.220€+11
RELATIVE ELECTRIC POLER POPULL COST		\$73,041 \$12,226	\$12,226	\$73,041	\$12,225	\$73,041	\$12,225	\$78,26S	\$12,225
HANDEL CONVENTIONAL PIEL COST		57,73	1, 914, 691	₩73,769	1957, 346	44 73, 769	\$307,346	102,115	\$2 07, 346
HANCEL RISK FILEL COST	S/YR	3		36		1 %		9606C	
ANDRE KON DISPOSAL COST	æ. •	0	0	0	٥	0	0	₹01££	10861
ANNUAL MEN DISPOSAL COST	8/YR	3	000 1 5	\$	\$141,000	\$	\$188,000	\$	27 ,000
FURNOICE COLD (NOKING CO & SNO(E) IF $= 1$	ğ	0		0		0		0	
MEN MAX ENTSSIDIG ROTE N/ MEN CONTROL DEVICE		.		6. 11		.		S	
MATERIAL CONTRACTOR AND	•	930		825201		036369		XC0011	
BORE COSTA INC. TO THE BEYOUTE CONSTRUCTION OF THE SECOND OF THE SECOND CONSTRUCTION OF THE SECOND OF THE SECOND CONSTRUCTION OF THE SECOND CONSTRUCTION OF THE SECOND OF THE SECON	•	9						CX3!	
BORE CORTA OTEL OF SAMPLE MECHANICA CONVEYNO		\$		o =		, =		, :	
BOSE CROTTON COST OF DAYS HE DAY NOTED.		€ 102		8		` £		, <u>6</u>	
BORE INCORPERTAL COST OF ASH HOREN THE SYSTEM	• •	S S		150 Pr.		165 105		¥ ¥	
BORE INCREDICTION COSTS FOR ENISSIONS CONTROL	•			2		2		. (3	

DARE INCREDENTAL COST FOR ROTLER MODIFICATIONS	•			231855		338165		330165	
BARE TUTAL INCIDENTIAL CAPITAL CISTS	-			9270 YS		540356		S43342	
BURBOLED TOTAL INCHEDITIAL COPITAL COSTS	•			1713, 230		3713, 230		6717,528	
CONTRAL RECOVERY FACTOR	90		\$	01\$	\$10	\$10	\$ 10	016	9
AMMENIZED COST OF CAPITAL	8 √3			3		*		\$	
TOTAL MARLAL CAN COST	8/AB		153,694	\$ 350, 615 \$	1, 196, 348	\$920,615	11, 196, 348	\$999,229	1,207,209
TOTAL ANNUAL COST INCLUDING COST OF CAPITAL	\$/YR		2153694	0	1196348	0	1196348	•	1207209
TOTAL COST DER MILLION BILD OF STECK, (inc. cost of capital)	S/INE		55 01	\$0.00	\$2.83	\$0.00	\$2.83	\$0.00	3; 38
SIR (SAVINGS/INVESTIGENT) AT EQUAL PRODUCT STEPH PRODUCTION	3			-0° 19		-0.19		-1.12	
TOTAL CAN COST PER MILLION BTU OF STEAM	TB#1/\$		6 10	\$2.88	£2.83	£2.88	8.9	\$3, 12	56. 86.
DAM COSTS FOR PLLYENIZER IF NOT NOF BUT COP. USED AS REF	#W.			\$		3		\$	
TONG PIER YEAR NOF REQUIRED	Ē	\$13,470		\$13,470		\$13,470		814, 549	
Avoided MSM disposal cost									
SIR w/disposal credit		Sens 16		Sens 17		Sems 18		Sems 19	

RECEASE PRODUCED PROJECTOR SESSION LEGISLES SESSION

Summary of Sensitivity Analysis Cherry Point		SE 58		Sens 21:51R w/credit	w/credit	Sens 22:51R w/credit	w/credit	Sens 23:51R w/credit	R w/credit
variable					-			1001	
definition	UNITS	ě	COMENTIONAL	₩	CONVENTIONAL	ğ	COMMENTIONAL	₽	CONVENTIONAL
THE THREE PRINCIPLES AND THE PRI		COFINE	털	COFIRING	덜	COFIRING	퍨	COFIRING	덜
ENTRELLY INCRESERED TO STEAM, AND MURITY, TUCK ANNILLIER LITTY	H) IS	70E+07	5.098+07	5.096+07	5.09€+07	5.09€+07	5.09E+07	5.0% +07	5.09E+07
MENT, MEN WAS THE LIFTER LOSS. REPORTED HIS IN VELICALITY.	H 1	8. b/e+0/	7.47.6+07	B. 166:+07	7.465+07	B. 66E+07	7. 46£ +07	8. 66£+07	7.46€+07
MALITANT TOWNSON SIGNATURE AND DIGHT	5	- MA	,	/0.4 ¥	:	/0·蒙·1	;	1. 34.+07	
BOLLEN D'FLLEDOLT MI AGN	5	9 6) S	91	24 S	0.76	9. 0.	0. 76	9.0
BUILER EFFICIENT HI MACAGE WITHIN	5	0.69	9	C o	9	6.0 K	3	0, 17,	0.82
MULTILAR STEAM (MSD)		2 7 7 7	2.24 24.46	2,2 4, 4	2,28,40	2.25€+08	2.25.408	2.25E+08	2.23E+08
	ğ	0		0		0		0	
TOTAL FLEE, INDUT ENTHALDY, AMERICE	HTH	7.41E+07	6.20€+07	6. 75E+07	6. 20€+07	6. 756 +07	6.20€+07	6. 7E+07	6. 20€+07
NOT PLOURATE, AMERICAE	Æ	ار ال		2.14		2.14		2.14	
CONFORTIONAL FLEE INPUT ENTHALPY, AVERAGE	LB/HB	3019	4210	2749	4212	2749	4212	2749	4212
SOLID RESIDUE RENERATED, PARRAGE	LB/HR	1197	278	77	279	774	279	174	279
CHROCK CONTENT OF SOLID RESIDUE, MAX HOURLY AT MCR	9	4.	6.0	0.23	0.03	0.23	6.0	0.23	°.3
FLYASH FRACTION OF SOLID RESIDUE, AVERAGE	SQ.	0.74	£0 €	0.74	6 80	0.7	0.23	0.74	6.23
FLYKSH ENISSION ABSOLUTE ANG EXISTING CONTROL DEVICE AT NCR			0	~	0	2	0	2	0
EMISSION OF TSP, NOT HOURLY N. EXISTING EMPR. AT NER	84/8T	90.0	0	0.0	0	9.0	0	90.0	0
LACONTROLLED FLYASH DIMISSION, MAX HOURLY AT INCR	LB/MBB	9. 11	1.28	B. 11	1.28	1. 19	1.28	B. 11	1.28
COMBLETION AIR NOTE, AVENNEE	SH/HR	63267	\$53£	57628	25966	57628	22966	57628	25366
COMBLISTION AIR VILLIMETRIC PLOMPATE, AMERICE	S.	14059	11763	12806	11770	12806	11770	12806	11770
HET PLIE BAS RATE, AMERICE	#XE)	16269	36.076	63867	26899	63867	26899	63667	56899
HET FLIE BAS VALUMETRIC FLON, AVERAGE	EQ.	50019	23132	20027	23201	20027	23501	2005	250
EMISSION DATAL DEVICE ASSUMED EFFICIBATY (EXISTING DEVICE)	30		-	-	1	-		-	-
NEW EMISSION CONNTO, DEVICE REQUIRED 1= YES	30 4	0	0	0	0	٥	٥	0	0
ELECTRIC NOMER COST FOR FD SYSTEM, AVERGOE	#H/\$	\$1.76	51.47	\$1.60	\$1.47	\$1.50	\$1.47	\$1.60	\$1.47
ELECTRIC POLER COST FOR 10 SYSTEM, AVERGEE	¥/\$	\$3.42 42	% 0.00	63, 13	\$0. 08	63, 13	\$0. 00	£3.13	80. 00
NISC ELECTRIC POWER COSTS, AMERICE	\$/H	\$7.45	8 0.00	\$6.88	\$0. 00	\$6.88	\$0.00	\$6.88	\$0.0 0
SOLID RESIDUE EDETRATED, MAY HOMBLY AT MCR	TB/AB	Ğ	\$ 04	123 123	6	<u> 5</u>	€ 0 	15 3	604
ANNUAL LABOR COST, BURDONED	EV/\$	1314,056	£28,77	6313, 953	\$226, 703	\$313,953	£226, 703	\$313,953	\$226, 703
OPERATORS PER SHIFT	HS/NON	2.15	1.55	2.15	 8	2,15	1.55	2.15	3.
COMENTIONAL FLEL COST, PAERBAE	#/#	3	\$115	Ğ	\$115	\$7\$	\$115	£	\$115
ADE FUEL COST, AMENDEE	\$ /₩	m		•		2		1	
ASH DISPOSAL COST, AMERICA	8/HB	\$	Ž	\$	3	\$	\$	3	Ş
CHERRYTING HISSAYR IN COFFIED STEAM SLIPPLY RONGE	HOURS	ŝ	653	86 28	8538	96.73 7	653	96.73 73	653
INCREMENTAL MAINTENENCE (2551, FOULK)	\$ /YR	300		3280X		32805		20802	
AMPLOBILITY, FROCTION	9	0.72	o R	0.72	0. R	0,72	92	0.72	0.95 PS
ANNUAL STEAM PROJUCTION, NET	978	3. 200£+11	4.220€+11	3.200E+11	4.220€+11	3.200E+11	4. 220E+11	3.200E+11	4.220€+11
RELATIVE ELECTRIC POWER PARIE, COST	#//#	£7,433	\$15,252 \$25	\$73,05B	12,230	\$73,058	\$12,230	\$73,058	\$12,230
HANCH LUMANICIAL LAST	#/YR	82	\$307,346	¥73,858	\$501,736	\$473, 858	\$957,736	\$473,858	\$57,736
ANNUAL FOR THE U.S.	#Y/#	2	!	98 88 88 88		9 8 82		9 8	
MACHE IN STREET LIBITION OF THE PROPERTY OF TH	N/A	22/35	17100	0	٥	0	0	0	0
HANCE ISSUED TO STATE	8/YR	\$	\$ \$,000	3	\$94,000	Ş	\$141,000	\$	\$188,000
FUNDATION COLUMN (MENCHINE CO. 4 SMITHE) 15 = 1	ğ	•		0		•		•	
NEW WAY BAYSSIDING MATE W/ NEW COMMIC DEVICE				A. 11				8.11	
MILITARY IN COMPANY OF THE PARTY OF THE PART	•								
BANE CHAITM. U.S. UF SIUNAE CENTRER	•	110736		106768		106768		106766	
MORE CHAILTE CLED OF LINE RECHAINE CHARCED	•	o (o •		۰ ۰		Ç	
BOOK CONTROL CASH OF SACRED RECORDER. CAMPETUR	•	ے ا		9		0		0	
BANK LANDSON A MATERIAL OF MATERIAL MATERIAL STRICTS	•	E 2		575, 478		55, 373		955, 379	
MORE INCOMPANY CAST OF NOT PROPERTY OF STOLES.	•	S		2 '		ş		\$	
THE CONTROL OF THE CASE OF ENTERING CANIFOLD	•	0		0		0		Э	

DAME INCREDIENTAL COST FOR BOILER MODIFICATIONS	•	338165		138117		336117		719811	
DAME TOTAL INCIDENCIAL CAPITAL LIGHTS	-	\$#\$X		240264		340264		340264	
BLOWESOED TOTAL INCHEDIONIAL COPITIAL COSTS	•	\$718, tob		6713,149		\$713,149		6713,149	
CAPITIAL METUNERY FACTOR	9	0.5	019	\$ 6	\$ 6	\$	3.6	\$	30.00
MONING INSTITUTION OF COPITAL	\$	\$		\$		•		•	
TOTAL CHALLAL CLAN COST	\$/W	1,022,073 \$	1,213,448	8 029 '0268	1, 136, 669	\$920,620	699,961	\$ 029,620	1.196,669
TOTAL AMBLAL COST INCLUDING COST OF CAPITAL	9/YR	•	1213440		1196669		1196669	٥	1196669
TOTAL COST PER MILLION BTU OF STEAM, (Inc. cost of capital)	1997	80 .00	82.87	80.0 \$	F2. B3	8	52.63	\$0.00	3.5
SIR (SOVINGS/INVESTIGNT) AT EQUAL PROQUE STEAR PRODUCTION	Ž	-1.49		. te		. 1 8		6.16	!
TOTAL DAM COST PER MILLION BITO OF STEAM	196 /	223	12.67	55.58 56.58	12. B3	3 8.	82.83	36.58	8.E
DAM COBTS FOR PALVENIZER IF NOT ROF BUT CORL LISED AS REF	E	8		\$		3		8	
TONG PER YEAR NOT REQUIRED	Ĕ	£, 13		\$13,473		813,473		913, 473	
Avoided MSM disposal cost				\$17,000		\$40° 200		\$64,000	
SIR m/disposal credit	J.	Se 28		\$		%		0.67	

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Summy of Sensitivity Analysis Cherry Point		Conventional Fuel	7. Fee!	3	-		2	•	•	,	
e las res		Cost -25x				3	¥.		2		1
OB, tuttion	UNITS	ğ	COMENTIONS	ě	COMMENT LINE	Š	Section 1	ì			
		8	ם	COF 1818G		36190	CLAND ! ! UNIT		COMENTIONS	ğ	COMENT IONS
BITHELPY TRANSFERED TO STEPR, AND HELPELY, 100% AMPLILABILITY	HULE	5.098+07	•	6.285.±07	204.00	700 M	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ا ا	SA IN INC	덜
MEN, AND MAN FOR COFINED CASE (REPORTED AT HI WELDCITY)	# <u>T</u>	8. 66E+07	7. 46E+07	B. 39£+07	7.465+07	A 705 +0.7	200	2 2) (L) ()	À 1	7 025 407
MALINIAN TOWNSHIPS STEAM BRITING, SEAM BRIDE	#12#	1.985+07		1. 92E+07		1.925.407	<u> </u>	10 X 10 1	1 M	4 5 % 40 V	/· ****
BUILT OF CONTROL AT ALL ALL ALL ALL ALL ALL ALL ALL ALL	2	0.76		0.74	9.0	0.74	3		6	À F	•
MALLER EFFICIENCY AT PARTIE COTPUT	VOK	9. K	5 0.62	0.77	9	, P	2	* K	¥ \$	* 5	ું લ કું કું
	HTH.	2.20E+0	2.235.408	2. 24 ± 5	2.25	2.25	200	2.5	¥ 5	8 8	2 1
	90		_	•				3	C. C.E. TUB	B 4	
TOTAL FIRST ENTHELPY, INCHESS.	1 10	6.75.407	6.20€+07	8. 18E+07	7.675+07	6.725+07	6 125+07	2007	10.30	2	
March Pullmenter, Average	¥			74	1	2.8		(A)	٠ <u>ت</u>	/.3/E+0/	(A)
COMPONITIONAL FUEL INPUT ENTINALPY, AMERICE	#WE)	2749	4212	2222	2	Š	1517	3	ŧ	4 16	!
SALID RESIDIE RENEWATED, AMERICA	#V	11		8	3	¥	, K	8 8	ទី រ		8
CHARGON CONTONT OF SOLID RESIDUE, MAX HOURLY AT MCR	NO.	0.23	Ŭ	0.12	8	3 8	2 8	Ê	e ;	3	8
PLYNSH FINCTION OF SOLID RESIDUE, AVENNEE	9	0.7		9	8	3 8	5 6	3 1	60.0	0.47	e 8
FLYACH CHISSION ABOULLITE AND EXISTING CONTROL DEVICE AT MCA	SH/B			3 °	5.	6.5	č č	₿ '	, 23	F	8
DISSIDA OF 159, MAY HOURLY W. EXISTING CHTM, AT MCR.	B0/87	60.0		9	•	•	.	~	0	~	0
UNCONTROLLED FLYRGH EMISSION, 1901 HOURLY AT INCR	894/87		· *	3 6	> g	8 °	0 (9. 8	0	9.0	0
COMBLISTION ALR HATE, AMERICE	ge//g	•	•	6.	e :	6.7	8 .	7.9	1.28	7.9	8 3
COMMETTER AT VALUETRIC FLOWANTE, ANCHORE	Š	386	-		3	57421	8 228	57421	2226	64687	2228
HET FLIE BYS INTE, PACINE				1253	3	12760	11612	12760	11612	14375	11612
NET FLIE 896 VILLIETHIC FLIAL AVENCE				286	20408	63980	36136	08623	36136	716.55	36136
DAISSION ONTHE DEVICE ASSUED PERIFFICIENTY (PRICTING MOVING)	Š	Sage,	100 T	31864	50/ 9 2	2025	22890	3035	22830	302	2880
NEW DRISSION CONSTRUCTOR REQUIRED IN VICE	5	- 1		-	-	-		-	-	-	-
ELECTRIC POLER COST FIRE EN SYSTEM CAPROCE	5	<i>ح</i> ه :	S	0	0	٥	0	0	٥	٥	
ELECTRIC PIDER CIST FIRE IN SPETIE CHEROCE	* :	33 :	4:.4	₹.;	\$1.85	31.60	\$1.45	\$1.60	\$1.45	9.18	\$4.18
MISC ELETPIC PURE CHESC AUCTORS		1 7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	80.0	7.82	80.00	83.15	\$0.00	63.15	90.08	25.23	8
SOLID RESIDIE EDIENDIED, MOY HOURY OF MYS	¥/5	3	8.0g	\$10.21	8 .8	\$6.65	\$0 .00	59.65	8.08	72.57	9
SAMEN LABOR CITY BURDEN		C !		1309	\$	1209	6	1509	\$	9	804
09580108S 968 S4[ET	#A/\$	2	Š	4343,245	\$256, 703	\$343,245	8226, 703	\$343,245	1236 703	134.245	2
COMPITIONAL FIEL COST. GARBOOK				2.35	 13	6.3 83	 R	ار ال	18	10	
OF FUEL COST. PARTIES	¥/,4	∂	3	2 152	3	\$ 100	823	8	*	2	***
ASH DISPOSAL COST. ACDREE		3	;	87		*		*		*	:
DESCRIPTION HERVY IN CHEST PRODUCT A DAMPS	#1/4	2	3	\$	\$	8	8	8	\$	28	:•
INCREMENTAL ROTATIONS CITED SHARE		8	623	8	823	<u>8</u> 2	86. 28	8	8	8	: <u>&</u>
AMILIBELLITY, FIRETION	X / K		!	33963		34068		34068		34408	į
CHAUTE, STEAM PRODUCTION, NET	5 5	0.72	g :	٠.	0. K	0.72	0. 18	0.72	6 8	0.72	8
RELATIVE ELECTRIC POWER CHANGE CYST	2 6	3. CAR + 11	4. ccte 111		5. 220E+11	3,160€+11	4, 160€+11	3,160€+11	4.160E+11	3.160€+11	4.160E+11
ANNUL COMBITIONS, FIEL CIST	# /*		37,25	\$106, 736	\$15,134		\$12,067	ĭ <u>,</u>	\$12,066	269 188	112,066
ANUAL ROF FUEL COST			20,000	, k	2, 3/0, 239		1, 869, 800	\$314,766	9944, 900	509, 6 00	944,900
ANUAL ASH DISPOSAL COST		ę c	•		•	55.39		35239		39696	
ANUAL INSIN DISPOSAL COST		` \$	3	> ;	0	0	0	•	0	\$2015	10720
FLIBHACE COLD (MENTING CO # SMOLE) IF = 1	5	2 <	900 146	3 '	\$186,000	3	\$188,000	3	\$188,000	3	\$100,000
NEW WAY ENISSIONS NATE IV NEW CONTROL DEVICE		•		9 (0		٥		٥	
INCLUDED IN COPITR, COST		3		6 :		7.9		7.9		7.9	
	•	106768									
	•	3		io °		117695		117655		12.29	
				> <		0		Ø		0	
BARE CAPITAL COST OF ADE VELIVERY SYSTEM	• •	£.		2 5		0		J		د،	
BANE INCREMENTAL COST OF ASH HANDLING SYSTEM	•	8		10,		103, 431		1.09,47		\$109,431	
BARE INCREMENTAL CORPUTAL COURTS FOR EMISSIONS CONTROL	. 🕳	; •		3 <		₽ .		ğ		8	
	r	•		>		Э		()		c	

SHALL SHARES SHARES

INVERTICUED OFFICE COST FOR BOILEST MODIFICATIONS	•	338117		33.39.77		333937		223927		223927		
INNE TOTAL PICKEDOTIAL COPITAL COSTS	•	240E64		18 38 33 57 38 33		261064		161064		£7777E		
BLYGORED TOTAL INCREDENTAL CAPITIAL COSTS	-	\$713, 149		8738, 765		\$740,604		\$740,604		6747.995		
CABITRE RECOVERY FROTOR	9	35.55	\$ \$	\$ o	\$ 6	\$ 6	\$0.65	2	3	3	3	
CONTRACTOR CONTRACTOR CONTRACTOR	£/\$	•		0		0		•	;	•		
TOTAL ANNUAL CUM COST	\$/YR	\$803, 020	1958, 983	81,292,678 12,612,076	2,612,076	11, 126, 337 12, 128, 569	P. 128, 569	\$611.571 61.183,669	. 183, 669	19 629 7	81.194.389	
TOTAL MONDAL COST INCLUDING COST OF CAPITAL	8/AR	•	958963	0	2612076	•	2128569	0	1183669	•	687.8G	
TOTAL COST PER WILLION STU OF STEAM, (inc. cost of capital)	1961/4	8.0	16.27	8.8	\$5. 00	\$0.00	\$5. 11	80.00	3	80.08	20.87	
SIR (SAVINGS/INVESTIGAT) AT EQUAL CHARGE, STECH PRODUCTION	ğ	÷.		A. 87		6.27	!	-	}	9		
TOTAL DAM COST PER MILLION BTU OF STEAM	184V/\$	5.51	15.27	13.27	65. 00	13.57	11.43	15.51	3,3	88	26.87	
DAM COUNTS FOR POLVERIZER IF NOT MOF BUT CORL LISED AS ASF	E	2		8		8		2	:	8		
TONG MEDI YEAR NOT REQUIRED	Ē	\$13,473		\$21,434		\$17,619		\$17.619		\$19,849		
Avoided MSN disposal cost		\$17,000		964 , 000		964,000		\$64.000		964,000		
SIR w/disposal credit		P. P		9.7		7.1		1.33		2		

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Summary of Sensitivity Analysis Derry Point		Best Case 15	£	
variable	-	Ì		
CETIBILION		1	CONTRACTOR CONTRACTOR	
THE PARTY AND TH	i Ed			
ENTRELLY INVESTMENT IN SIENT, AND RUDALY, 1005 ANNILHBILLITY	1016 1116	6. CAT-0/	5. C3E+0/	
MAN, MEN THAT FOR CAPTAGE CASK INCOMING HIS VELECTION		0.575.0	, 	
PROTECTION OF THE STORY IN THE STORY OF THE	5 5)		
BOLLER CHILDENLY MI MUN	5 \$	* #		
BUILDING OFFICIALT MI WASHE WITH	ž :		3 1	
MALINEN SIEM DEMEN (MSD)	5	3	\$ 0	
	8	•		
TOTAL FIRE INPUT DIMBLIPY, AMERICE	E i	8. 18E+07	7.67E+07	
NOT PLIMATIE, AMERICA	E	₩ ₩		
COMFORTIONAL FLEE IMPLY BUTHALPY, AVERAGE	#E/67	88	2515	
SOL 13 RESIDUE EDIERATED, AVERAGE	EB/AB	簽		
CHRON CONTON OF SOLID RESIDUE, NOT HOUSEY AT NOR	\$	0.12		
FLYASH FRACTION OF SOLID RESIDUE, ANERGOE	ğ	9. S	S.	
FLYICH EMISSION ABSOLUTE AND EXISTING CONTROL DEVICE AT MOR		~	0	
EMISSION OF 159, MAX MODRLY N/ EXISTING CHARL AT MCR	B#U8T	ુ	0	
UNCONTROLLED FLYASH EMISSION, MAX HOURLY AT MCR		7.9	8	
COMBLETION AIR HATE, AMERICE	EB/HA	2882	<u> </u>	
COMBLESTION AIR VOLUMETRIC PLOMBATE, INVENDEE	5	22	14565	
NET FLIE BOS ROTE, ANEDROSE	#H/AT	36	90402	
NET FLUE BAS VALUMETRIC FLOW, AMEDIAGE	ē	31864	28709	
EMISSION CHIRL DEVICE ASSURED EFFICIENCY (EXISTING DEVICE)	8		-	
NEW ENISSION CONNIC. DEVICE REQUIRED 1= YES	Q	0	0	
ELECTRIC POWER COST FOR FO SYSTEM, PAERAGE	\$/HR	₹.1 \$	\$1.82	
ELECTRIC POWER COST FOR 10 SYSTEM, PACROSE	#V*	\$.		
MISC ELECTRIC POMER COSTS, PAERBOSE	8/HR	\$10.21	\$0.00	
SOLID RESIDUE REDERNTED, MAX HOURLY AT MCR	E9/H2	<u>85</u>		
ANNUAL LABOR COST, BURDDIED	S/AR	\$343,245	\$226, 703	
DREADTORS REA SHIFT	HS/NON	2.58		
COMPORTIONAL FIRE, COST, PARTIENE	#I/\$	정 •	\$58 2	
NOF FIRE COST, AMERICE	8/HB	25		
ASH DISPUSAL COST, AMERICE	\$/HB	\$		
OPERATING MISSAR IN CONTINED STEAM SUPPLY RONGE		8	863	
INCIENTIFIC HOUTERINGS COST, PROLIL	\$/YR	3362	!	
AMAILURE CITY FRACTION	y	0 75	K	
HANDAL STEAM PRODUCTION, NET	2	3.966+11	5,220€+11	
PATCH INC ELECTRIC MIREN HOUSE LIST	X / 4	916	910b, 726 85, 134	
CARLOL BAC DES CARLO	E 100	200	K, 3/0, C3	
ANUA 1991 DISCOSSI CITET	E A		o	
AMALIAL MESH DISPOSAL COST	av/s	\$	000 784	
FURNOCE COLD (MOKING CO & SHOVE) IF = 1	Š	0		
NEW HOX ENTOSIONE NOTE W/ NEW CONTROL DEVICE	984/ET	7.9		
INCLUDED IN COPITRI, COST				
BARE CAPITAL COST OF STURKE, JUSTISTER	•	116301		
BARE CAPITAL COST OF LONG MEDIANICAL COMPTOR	-	0		
BARE CAPITAL COST OF SHORT MECHANICAL CONVEYOR	•	٥		
BARKE CAPITAL COGT OF ROF DELIVERY SYSTEM	-	\$109,431		
BARE INCREMENTAL COST OF ASH HANDLINE SYSTEM	•	\$		
BARE INCREDENTAL CAPITAL COSTS FOR EMISSIONS CONTROL	•	•		

BONE INCHEDIONAL COST FOR BOILER HODIFICATIONS	•			
BANE TOTAL INCIREDEDITAL CAPITAL COSTS	•	52562		
SUPPORTS TOTAL INCHEDIONAL CAPITAL COSTS	-	57 M. 165		
COOTS OF RECOVERY FACTOR	ğ	\$ 6	3.8	
AMALIA 17ED COST OF CODITAL	E	٥		
TOTAL AMMENDE OUM COST	\$//\$	8/YR \$1,292,678 \$2,612,076	2,612,076	
TOTAL ABOURL COST INCLUDING COST OF COPITAL	S/YR	0	2612076	
TUTTAL COST PER MILLION BTU OF STEAM, (inc. cost of capital)	1961/\$	8 0.0	\$5.00	
SIR (SOVINGS/INVESTMENT) AT EQUAL CANADA, STEAM PRODUCTION	ğ	6.87		
TOTAL CULA COST PER MILLION BTU OF STEAM	\$/MBT	13.27	95.00	
OUR COSTS FOR PLLVENITER IF NOT NOF BUT COAL USED AS ASF	€ √\$	\$		
TONG FER YEAR NOF REQUIRED	ě.	£21,434		
Avoided MS4 disposal cost		\$17,000		
OTD Minness! readily		8		

Summery of Sensitivity Amalysis		Œ				~		~		•		'n	
PLEET STAND		Baseline		1				PO ROISTURE		i		Excess Alr	
			Conventional Fue!	Stifing	Convent tonal	Cofifing	Convent tonal	Cofifing	Convent I ona! Fue!	Seling	Conventional	Se fire	Convent Ional Fue!
definition	CM17S												
BUTHAL DY TRANSFERED TO STEAM, AND HOURLY, 100% AWAILABILLTY	F.	6. 825+07	6. B2E+07	7.94€+07	7.946.07	1.075+08	1.075 +08	6. BME+07	6. BME+07	6. 79. 107	6. 79E+07	6, 70€ +07	6. 70€ +07
NCA, AMS NOT FOR COFINED CASE (NEMOTED AT NI VELOCITY)	8	1. 42£+08	1.386+06	1.426+08	1.386+08	1.425.08	1.386.408	1. 4H +08	- 38E+08	1.386+08	1.38.108	1. 325.10	1.375+08
MAZINEM TURNIQUEN STEAM BOTING, SEAN BITCH	Ē	3.206+07		3.205+07		3,20€+07		3 24E+07		3.156-07		3.176+07	
BOLLER EFFICIENCY AT INCH	2	0.77	0.0	0.77	0.0	0.77	0.8	0.78	9 8	9.76	9.0	0.76	9
BOILER EFFICIENCY AT AMERICE CUTAUT	5	0.68	9.0	0.7	9 ,0	0,72	ස ර	0.69	0 .0	0.67	9.0 0	3	9 o
HOLITHON STEAM DENOMO (MSD)	Ę	1.506+08	1. 505+08	1.506+08	1. 506 +08	1.50£+08	1.50£+06	1.506+08	1. 50€+08	1.506+08	1.50€+08	1.50€+08	1.50€+08
DEBOTE	ğ	0		٥		•		0		0		8.0	
TOTAL PLEL INPUT ENTHALPY, AMERGE	를	9.99€+07	6.516+07	1.145+06	9.916+07	1. 495.108	1. 33E+08	9.915+07	6. SEE 107	1.015+06	B. 47E+07	9.90€+07	6. 4XE+07
NDF FLOWRITE, AMERICA	Œ	3.17		3.61		4.72		K 2		2.5		A 14	
COMBITIONS, FIEL INPUT BITHRUM, PAERSE		5005	4107	93	2	90 100 100 100 100 100 100 100 100 100 1	12666	3	8 153	5767	8065	999	200
SOLID RESIDUE REVENATED, AVERAGE	E	1949	8	2100	æ	Ş X	1260	1961	400	300	ē	<u> </u>	Ē
COMBION CONTIDIT OF SOLID RESIDUE, MAY HOURLY AT ACR	ğ	0.47	9.3	\$	0.3	£.	0.3	0.49	0.3	\$	0.3	0.47	0,3
	ğ	x8 ~;	Q. 37	% %	0.33	% ?	0.37	2.	0.37	9 8	0.37	₹.	• °
PLYNGH DILSSION ABSOLUTE AND EXISTING CONTROL DEVICE AT MCP	€		0	~	0	•	•	~	0	m	0	e	•
ENISSION OF 159, NOW HOURLY NV EXISTING CHARL AT NCR			•	9	۰	9	٥	ಕ ಕ	٥	හ ර	•	9.	•
UNCONTROLLED FLYRSH EINTSGEON, WAS HEURLY AT HCP	LEVINETU	20,78	4	£.7.	7	8.7	4	8. 8	3.63	S S	7	¥.	27.20
COMBLISTION AIR HATE, AVENAGE	Š	2.6 19	80778	10/201	¥62	141156	126407	2403	91000	35768	80365	101229	12190
COMBLISTION AIR VOLUMETRIC PLOMBATE, AMENAGE	ē	21071	īg.	2398	20896	31368	28091	20897	18000	21282	17859	243	19139
WET FLUE SPS APTE, CARENDOE	≆	104924	99090	119611		156,309	137833	103343	13 13 19 10	106944	87629	111246	93.0%
NET FLUE BYS VOLUMETRIC FLOW, AMERICE	Ē	17437	30981	8363	36064	42700	4 9 4B1	16910	31066	18118	30623	262	25777
ENISSION ONTAL DEVICE ASSUMED EFFICIENCY (EXISTING DEVICE)	ĕ	-	-	-	-	-	-	-	-	-	-	•	-
NEW EMISSION COUNTY, DEVICE REQUIRED 1= YES	ğ	•	0	0	0	•	•	0	٥	0	•	•	0
ELECTRIC ROWER COST FOR FID SYSTEM, AMERICE	4 /4	\$1,12	5 0.00	11.27	11.11	\$1.67	\$1,49	11.11	3 6.98	\$1.13	8. 8.	6 :.19	91.06
ELECTRIC POLER COST FOR 10 SYSTEM, AMENAGE	E	3.63	90 °0	\$2,16	9 9.8	67.B0	8 0.08	₹.	\$0.00	\$ 1.69	80.00	\$1.78	90.0g
MISC ELECTRIC PUNER COSTS, AMERICAE	¥	3	8 0.08	3	8 8	55. 72	8	13.61	8 0.8	₩.69	80.08	\$ \$	8 0.00
SELLID RESIDUE GENERALED, MAY HOMELY AT MCH	₹	S N	3	Š	3	R N	3	200	3	K K	3	383	3
PARCIAL LABOR COST, BURDED	¥ .	_	\$30,046	54.072 44.57,072	\$330,04d	54.57, 072	\$30°048	54.57,072	8430,046	\$457,072	£330, 044	180 A	4.224, 600
	14176/161		2	8	ผ	80 H	2	8	ผ	30 F	ผ	30°E	2.21
LUMPHIUME, FIEL LIST, AMERICE			4316	Ď,	3	9	X	3	<u> </u>	9	SIS.	ស ្ត	£113
ROP FUEL CIEST, RAVENSEE	¥ :	8	;	87.8	į	8.6	;	8	:	87.80		8	,
NEW DISABLE LIBER, WASHING.	, <u>.</u>	644	\$;	916.80	8.3	2. S.	0.0	14. 93 14. 93	9	31.5	4	\$15.45	# : # 1
CANADA MAN TA LA LA LA SENT SENT TOTAL TOT		S S	ē	Ç i	ē	S !	Ē	Š	Ē	8	Ē	Š	ē
INCREMENT MINISTER USI, MAURI		000	į	5	;	27,872		916 53	;	51 OH	:	2	;
AMILIABILITY, FINCTION	5 §	2 7		2	8	9	g :	5 K	9	2 7	訳 :	278	家 :
HARDE SIEDE MULTIUM, ME	2		2.040€+11	- AGE -	6. 800E+11	6. 710E+111	% 140E+11	4. 300.	2. BEOK + 1.1	4.270€+11	5. 810€+11	4.2206+11	5.740€+11
RELATIVE ELECTRIC HOLER ANNUAL COST	¥ .	45° 54	3	90	\$	970, 378	\$12,773	53,65	Ž Ž	\$47,243	%	FF. 193	3
HANCE CONFORTING FIEL COST	\$/VR	1,400,561	2,706,711	1,355,015	J, 150, 820	12,084,989 c	4,275,650	\$1,209,012 g	2, 714, 138	\$1,414,574	£, 69, 559	47. 386. La	15,679,733
CHARLE FOR COST	₽/¥R	28 5 5		45,45		104 65		\$3 \$3		\$47,018		58, 85°	
CHARLAR ASH DISPOSAL COST	5	938, 036	8	100 E	8. T	121,127	86 , 30	199,550	900	\$103,957	104,867	997,202	83 °S
APPLIAL ACE DISPUSSION COST	£	8672 , 000		\$672,000		36 72,000		8 6.72,000		86 72,000		86 72,000	
FLEBRATE COLD (MONTHS CO. & SMOLE) IF = 1	Ä	0		٥		0		٥		٥		٥	
NEW HOT DISSIONS POTE N/ NEW CONTROL DEVICE	LB/MeBIL	30.7:		30.71		30.71		31.88		8 9 9		30.47	
INCLUDED IN CAPITAL COST													
BRAFE CAPITION COST OF STONDORE SUBSYSTEM	-	5134,673		13,53		\$12,079		शहर स्टा		\$142,239		\$131,412	
BONE CORTTAL COST OF LONG MEDIGNAL COMMENDA	•	8		2		2		2		\$		₽	
BHE CHITAL COST OF SHORT REDIGNICAL COMEYOR	-	\$		8		8		8		2		3	

かってい。「「ちゅうシンシン」。 ななななななな。 これなるないので、「おおおとなるない」であるながら「「「「「「」」」」というのでは、「これのことのできる。「「「「」」」というのです。 「「」」というのです。 「「」 第20

Summer of Sensitivity Philipsis		Œ		-		~		m		•		'n	
PLET STUD		Baseline		Steam deman	_			RDF Hoisture					
			convent i ona!	3	Convent ional	ě	Convent 1 ona 1	3	Convent tona!		Convent ional	ě	Convent tone!
		Cofifing	Ĩ	Cofifing	Fue!	Cofifing	Fue)	Cofifing	.	Cofifing	.		
definition	ST T												
BANE CARITAL COST OF ADS DELIVERY SYSTEM	-	\$114,463		\$114,463		\$114,463		\$115,406		\$113,263	6113,283	\$111,499	
BORE INCREDENTAL COST OF ASH HORDLING SYSTEM	-	3		3		\$		\$		3		8	
MANE INCORPORAL COMPINE COSTS FOR EMISSIONS COMPINE	-	8		2		8		\$		\$		8	
NAME INCREDITION, COST FOR NOTICES PODIFICATIONS	-	6410, 093		\$410,093		#10,093		\$413,350		\$405, 474		138,801	
NAME TOTAL INCREDENTAL CONTTAL COSTS	-	80 25 30		658105		6,463		1181377		9/6099		641711	
BUNDED TOTAL INCHESIONAL COSTAL COSTS	•	64070, 212		406.8 , 699		se66, 765		1867, 737		9872, 489		\$647,009	
CADITAL RECOVERY FACTOR	90	*	5	3 5	j.	ð, e	\$	st of	S. o	న్ ర	ž	\$ o	ð
CONTROL COST OF COPITAL	8 //8	3		2		2		\$		3		8	
TOTAL CHANCEL CHAN COST	#/#	5,078,335	13, 100, 072	£2, 253, 409	13, 354, 359	K, 63, 539	2,64,73	82,053,943 B		82, 109, 938	3,085,896	E, 063, 418 9	3,071,698
TUTIA, MANUAL, COST THEOLOGING COST OF COPITIAL	E S	2	13, 100, 072	8	13, 354, 369	2	£, 65, 73	3		\$	3,085,896	8	3,071,698
TOTAL CONT NEW MILLION BTU OF STEAM	S/MET	\$6.00	15 15 15 15 15 15 15 15 15 15 15 15 15 1	8	1	9 0,0	11.4	80°08		\$0 .00	16. 31	₽	q
SIN (SOVINGE/INVESTIGAT) AT EQUAL ROOLE, STEAM PRODUCTION	ğ	2.18		3.49		6.47		S,		1.72		ø;	
TOTAL OLAN COST REA MILLION BTU OF STEAM	ULBEACY 8	į	\$5.31	r I	ភ ូ	\$.23	12°	£.1		まざ	15.33 15.33	8. I	惊
CHAR COSSTS FOR PALLYEDIZER IF NOT FOR BUT CORE USED AS ASF	8//8	3		2		\$		8		8		8	
TOIS, KEN YEAR MAY REQUIRED	Ē	19951		22721		19765		17313		2209		19778	
Avoided MSW elisposal cost	E	\$210,000		1210, 000		9510, 000		£210, 000		\$210,000		#210, 000	
SIR w/disponal credit	8	3		2.0		A. 78		3.		₹.03		ş	

FIDT Conventional	AND Commentational Lofs fing Fuel 1.36 + 00 1.36 + 0	2011/1/19 2011	Convent tonal Fue! 6. 806-07 1. 306-08 0. 8 1. 506-06 8. 496-07 0. 3 0. 3 0. 3 0. 3 2. 4.3 800699	6. 866.07 1. 466.08 1. 306.00 1. 306.00 1. 306.00 1. 306.00 2. 30 3. 43	Fue! Fue! Fue! Fue! Fue! Fue! Fue! Fue!	65 775 47 1.375 48 1.	ائت ان ا	Cofifing 1. 425-407 3. 205-407 0. 77 0. 77	Convent Long) Fue!
Coffing 6.506+07 1.206+03 1.506+03 1.506+03 0.03 9.716+07 1903 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0	5月5次第月9月2日日日日日	a	Fue) 1. 365 +06 1. 365 +06 1. 505 +06 1. 505 +06 8. 495 +07 903 903 0.3 2.43 80599	6. 866-697 1. 466-698 1. 178-697 1. 306-698 1. 306-698		282K28283K221	Fue? 6, 775-07 1, 386-08 0, 8 1, 506-08 8, 456-07 8043	5 9 5 F 9 9	Ĩ
5.506.40 3.1246.40 3.1246.40 3.1246.40 1.506.40 9.716.40			6, 806-67 1, 306-68 0, 8 1, 506-68 1, 506-68 803 0, 3 0, 3 0, 3 0, 3 0, 3 0, 3 0, 3 0,	6. 806.40 1. 466.60 3. 176.40 0. 276 0. 276 1. 306.40 1. 306.40 1. 306.40 3. 406.40 3.		6.772-07 1.376-09 3.146-07 0.57 0.57 0.50 0.50 0.50 0.50 0.50 0.	6. 775.407 1.386.408 0.8 1.366.408 1.366.408 84.456.407	6. B25 +07 1. 425 +06 3. 206 +07 0. 77	
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1, 196 40 56 70 56	4 2		0.8 0.8 0.6 0.6 0.8 0.3 0.37 0.37 0.37 0.38 0.38 0.38 0.37	1.176-07 0.26 0.26 0.1016-08 1.016-08 1.016-08 0.20 0.20 0.20 0.20 0.20 0.20 0.20 0.		3.146-67 0.73 0.67 1.506-68 0.01 1.016-68 4.12 5773 2143 0.043	0.8 0.8 1.50E+08 8.45E+07	0.77	
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0.09 3.115-07 3.108 3.10	ed ed		8, 49E+07 8008 80.3 0.3 0.37 0.37 3.43 80089	0 1.01E+66 3.43 3.43 2.04 2.12 2.12 3.04 3.043		0.01 1.01£+08 5773 2143 0.43	æj .		305-00
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437, 987	#0' F.K			\$40 , 167		940, 307		940,030	
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3	4		3	4.280€+11	5.430€+11		5, 790€+11		5,840€+11
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\$1,361,539 12,619,441	81, 405, 131 62, 704, 243	-	2	\$1,408,7%	S,	11,416, 386 9.	R, 665, 351	\$1,400,361 %	706, 711
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655,744 853,371	\$140,936 855,099	819,1054	95E, 000	\$102,370	55, 650 50, 680	\$107,656	804, 718	198, ICS	\$ 18 18
\$672,000	1672,000	96,72,000		9672,000		672,000		9672,000	
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B/MMBTU 30.22	30,58	¥.00		30,45		30,13		7. 38	
305,506	\$145,BM2	\$153, 103		\$140,466		1147, 323		\$134,675	
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Summary of Smeitraty Realysis party craim		٠		~ 1		•		6 AH 30		91		E Cost		
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definition	ST IND		.	Coffing			<u> </u>	Cofifing	<u>.</u>		3	Cofifing	3	
BANE CAPITAL COST OF NOT DELIVERY SYSTEM	•	\$108,736		\$114,173		\$113,740		9113,741		\$112,735		\$114,463		
MARE INCREMENTAL COST OF NOW HANDLING SYSTEM	-	8		\$		\$		3		2		2		
NAME LUCKENESTIRE, CAPITIRE, COSTIS FOR ENISSIONS CONTROL	•	8		\$		8		8		2		8		
BARE INCIDENTAL COST FOR BOILER HOBIFICATIONS	-	1,384, 362		9408, 920		\$407,280		\$407,283		PHO3, 703		\$410,093		
BARE TOTAL INCREDENTAL CORPTAL COSTS	•	3		£6533		674123		661510		663821		2263		
BURDED TOTAL INCIDENTAL CAPITAL COSTS	•	MECS, 797		6679, 033		496 9, 9 42		4673, 193		9876, 244		\$40.70,212		
CAPITAL NECOVERY FACTOR	ğ	\$	\$ \$	\$ #	s o	Š	\$	\$ *	አ ኖ	5	\$	20.00	3.3	
CHANGE LITED COST OF COPITAL	EA/8	2		\$		\$		3		2		2		
TOTAL MONTH, DAM COST	# /s	82,031,983 83,009,076	S,009,036	12,137,017	R2, 137, 017 83, 097, 547 82, 219	82,219,087	63,093,573	82,099,629 83,093,389	13, 053, 389	£, 123, 692	63, 078, 417	43,372,578	12, 372, 578 13, 100, 073	
TOTAL REGULA, COST INCLUDING COST OF CAPITAL	5	8 0,13	J, 009, 076	\$	12,097,547	8	KS, 093, 573	8	13, 093, 589	8	63, 078, 417	3	63, 100, 073	
TOTAL CONT MER MELLION BTO OF STEAM	S/NET	90.08	7	8,08	£ 3	8 0,08	66,31	8 8	E A	\$0.08	5 6.33	80.08	n d	
SIR (SAVINGS/INNESTIGOR) AT EDUAL MOURE, STECK PRODUCTION	ğ	2.07		1,51		8 7 0				5:1		-15		
TOTAL OLD COST PER MILLION BTO OF STEAM	TIME!/\$	16.3	16.41	86. ≇	\$5, 31	\$.18	65.31	£.9	\$5.31	\$. 1	\$5.31	87.86	55.31	
OUN COSTS FOR PALVERIZER IF NOT ROF BUT COST, USED AS AGF	E/\$	8		8		\$		*		\$		3		
TOB ALL YEAR OF REQUIRED	Ē	200		2017		3 182		F63		6		19951		
Avoided High disposal cost	# /#	6210, 000		1210, 000		9510, 000		8210, 000		\$210,000		8 210,000		
SIR w/disposal credit	ğ	÷		R of		2.83		£ 19		24		4		

STATE OF THE STATE		2		51		=		15		31		11	
0.087 50.00		¥	le me t	Cofire Ratio	0	y a	Company	Conventional Fuel Cost	Poel Cost	Ě	Constant Const	MSW Disposal Credit	J. Credit
		¥	Fue!	Ę	Fig.	£	Fuel	g	Fue!	£	Fue!	£	Fue!
definition	S												
ENTHRY PROMESTERED TO STEAM, AND HOURLY, 1005 AVAILUBILITY	퉏	6. B2E +07	6.825.407	6.86.407	6. BEE +07	6.75.407	6.75£+07	6. 825 +07	6. 825+07	6.825+07	6. BZE+07	6. 825 +07	6. B25 +07
ACCI, DASS MALL FOR COFTIACO COSE (ACRONTED AT HI VELOCITY)	HTH.	1.425.08	1.385+06	1. 49£+06	: ME -08	1.366+08	1.366.408	1.425.08	1.386+08	1.425.408	1. 38£ +08	1. 425 +08	1.386+08
HOWENINGS TURNOCOURS STEEM ROTTING, SEGRE BYTH	HT.	3.20£+07		3.33€+07		3.07E+07		3,20€+07		3.205+07		3.20€+07	
BOILEN EFFICIENTY AT MEN	9	9.7	ඉ ර	6. E	9	0.7	o.	0.77	ස ර	a n	ම ප්	47	9
MOTUEN EFFICIENCY AT AMERIE DUTAUT	9	3	0.8	0.7	9	9.63	9	5	9 .0	න ර	o. 8	3	.
HOLTHUM STEAM DENOME (MSD)	Ę	1.506+08	1.50€+08	1, 50€+08	S0E+08	1.50£+08	1.506+08	1.506+08	1.50€+06	1.506+08	. 506+08	1, 50€ +06	1.50£+08
DESPITE	ğ	0		0		9 8		0		0		•	
TOTAL FUEL INDUT BITHALPY, AMERGE	BTG	9.9% +07	6. 51E+07	9.266+07	6. SEE +07	1.00E+08	A. 4 KE +07	9.99€+07	6. 51£+07	9.985+07	8. 51E+07	9.9% 07	8. 51E+07
NOT FLOAMSTE, AMEDREE	Ē	7	!	1.47	į	¥ :	:	H 1	!	11		717	;
COMBUTIONAL FLEE INNUT DITHALLY, ANEMORE	E CBONE	6	107	8	9229	017	1	60/6	2010	600	2010	600	6107
SOLID RESIDUE REDEMPTED, PARAMER		<u> </u>	8 3	3 ;	9	8	È,	£ ;	83		8 3	T	8 3
CHARGO CONTENT OF SOLID RESIDLE, HOL HOLLY AT ICK	5 5	, c	7.5	. ·	3.5		3,0	÷ 6		÷ 6	2 5	÷ %	5 6
CLASS FRELIGIA OF SALID RESIDES, WESTERS.	9	3 ~	à °	î ~	ì	<u>.</u> ~	;	. ~	; c	7 ~ 1	, •	3 ~	, .
Ē		, 6	· c	, 6		' ē	· c	, 8		9		' &	, c
CHARGO STORY OF THE CHARGO STORY OF THE	1	, d	3.43	31.7	7	27.75	143	30,71	3.43	30,71	2.43	30,71	343
CHARLEST THE BOTT DEFENDER. THE THIRTY IN THE		3	80778	87870	923	102396	68667	94619	80778	94819	80778	94819	80778
CHARACTER OF UNIVERSELY OF DEBOTE DATE OF	5	21071	100	1922)	09081	27.23	Ē	21071	178	21071	17851	21071	į į
LET TO IS BOX BOXT CAPROCK	8/48	100	98080	86518	96616	114156	87219	104924	99090	104924	96060	*X*0:	99090
LET FILE FOR VITUALITY PLAN CAPAGE	ğ	17437	30981	343	31170	18371	30678	17437	3098	17437	30961	17437	30981
CHISSION OWIN, DEVICE ASSAUD EFFICIBILY (EXISTING DEVICE)	¥Q	_	-	-	-		-	-	-	-	-	-	-
NEW ENISSION CONFITOL DEVICE REQUIRED In YES	¥Q.	0	٥	0	0	0	0	٥	0	0	0	0	0
ELECTRIC POWER COST FOR FD SYSTEM, PACINGE	£ /\$	51 . 15	\$ 8	1.0	\$6.98	\$1.21	\$ \$	\$1.12	\$ 0.93	\$1.12	3 .	\$1.12	3 3 3
ELECTRIC POLET COST FOR 10 SYSTEM, PAEROGE	8/HR	3 .€	80 .00	31.46	3 0.00	\$1.85 \$1.85	\$0.00	27.63	\$0.00	3.6	90°09	€.63	8 0.00
MISC ELECTRIC POMER COSTS, PACENCE	Œ1/ \$	8 .	\$0.	₹ 5. 12	90.00	¥6. I4	8 0.08	8 1	\$ 0.00	3.	9 0.00	8 1	80. 08
SOLID RESIDUE GENERATED, MAX HOURLY AT NOR	LB/HR	S S	16.00	2067	16.53	96 80	<u>3</u>	R K	16.53 25.00	Ř	3	Ŕ	<u>8</u>
ANNUAL LABOR COST, BURDENED	#/ AB	\$457,072	\$30,046	£3%, £3	\$330,048	4499,718	\$330,048	H27,072	\$330,048	27,072	\$330,048	\$457,072	\$330,048
OPERATORS PER SALET	FIREVIEW	8 H	22	3 5 ณ์	ผ	% *	ผ	8 선	ಜ	8 전	ಜ	8 ~	2
COMPORTIONAL FLEL COST, PARTISAR	# /	S	1316	27.27	\$318	918	\$ 313	##S	A A	25	1		912
NDF FILE COST, PAGENGE	€F/#	106.00	;	8 i	:	\$10.00	,	8 8	:	8	;	8	;
ASH DISPUSAL COST, AMERICA	¥/4	65.5	ş i	10.7	į	10.17	9 - S	E ACT	\$ - \ 0 1	60 m	i i	60 TH	1
CHARGOTTING HASAYR IN CONTRACT STORM SUPPLY RANGE			Ē	20.02	Ē	3	Ž	020 O30	ŝ	\$40.030	Š	80.030	į
INCREMENTAL PRINCIPANCE LESS, NAMES.			8	2	8	5	5	2	8	67.0	8	27.0	\$
COMPANY CYSON DOCUMENT ON MET	į	A 2005	5. PMOF+13	11.202.4	S. 8706+11	1.205-11	5.780£+11	4.290F+13	5. BM0E+11	4.290€+11	\$ 840E+13	4.2905+11	5.840E+11
BELOTIVE SIGNATOR OFFICE CHARGE ME.	0 A/ S	3	3	8	412.83	187.69	\$6.08v	45.934	28 165	\$42.934	49 164	# S. 334	48.16
CONTINUE LICENSIS FIELD COST	#/ A	190,00	11, 706, 711	•	E, 723, 182	\$1,008,319	26,083,9	25, 801, 122	15,413,422	\$2,100,842	M,060,067	11,400,561	12, 706, 711
CHARLE REF. CTST	8//8	\$666.962				\$5. 5X		508,305		\$33,902		\$39,902	
MANUAL IOSH DISPOSAR COST	₩/ %	900 006	85 E8	167,751	15. 15.	112,163	\$\$.610	\$38,056	5 TO	\$38,00%	55 , 149	35 36	\$50, 149
CONTURE MESH DISPOSOR, COST	\$ /YR	96.72,000		9672,000		\$672,000		\$672,000		1672,000		\$1,006,000	
PLANNECS COLLD (MONTHIS CO & SMODE) IF = .	ğ	0		0		0		0		c		O.	
HER HAT DISSIDES BOTE AT HER CONTROL LEVICE	LB/MMT0	 20. /		31.7		23.73		;; X		30.7;		. 7	
INCLUDED IN CAPITAL COST													
BRONE CAPITIAL COST OF STONARSE SUBSYSTEM	-	13,675		\$101,407		\$160,109		\$134,675		129°45'3		:	
BONE CORDITAL COST OF LONG MECHANICAL CUMPETOR	•	\$		\$		\$		3		3		a i	
BARE CHOITAL COST OF SHORT MEDIANICAL CONFERS	-	₽		3		2		2		2		•	

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Semany of Sensitivity Realysis		21		۳ ;		±		23		91		11	
PURET SOUND			oment tonal		Conventional		Convent tonal	Conventional Fuel Cost na. RDF Conventional RDF	Fue! Cost	ĕ	Convent ional	ISSOSSEE DISSOSSEE	Credit Orwant ional
		Cofifing	, e	Cofifing	Fuel	Cofifing	i i	Cofifing	3	Cofifing	F.	Cofifine	Fue!
definition	UNETS									•			
BARE CHAITIL COST OF NOF DELIVERY SYSTEM	-	\$114,483		190,283		5130,350		\$114,483		\$114.463		\$114.483	
DATE INCREDENTAL COST OF ASH HANDLING SYSTEM	•	8		\$		2		3		2		3	
MARE INCREMENTAL COUTAL COSTS FOR ENTSCIONS CONTROL	•	8		2		2		8		8		\$	
HARE INCREDITING COST FOR MOILEN HOBIFICATIONS	•	\$410,093		417,736		9406, 414		€410,093		M10, 093		\$410,093	
INNE TOTAL DICEDENTAL CONTRAL COSTS	•	2225		8034609		530072		22.53		3		3	
BLOCKED TOTAL INCIDENTIAL CAPITIAL COSTS	•	\$12,018		500,322		1914, 836		\$4070,212		\$670,212		\$670,212	
COPITAL MECONERY FACTOR	ÄÖ	\$	5 6	đ, r	¥	is o	\$.6°	*	3 .	\$	¥.6	8	\$
ANNUALIZED COST OF COPITAL		\$		3		3		\$		3			
TUTINE, REPORTE, CHRI COST		12,705,616		12,273,251	43,116,929	\$1,804,610	13,073,005	43,479,117	15, 806, 784	82, 778, B36	95, 453, 428		3,100,072
TOTAL GREAT, COST DICLIBING COST OF COPITAL	E 5	80 83, 100, 073		80 83,116,929	43, 116, 929	80 81,073,005	1,073,005	80 85, 806, 784	15, 806, 784	*	80 FEN 45 08		3,100,072
TOTAL COST PER POLLTON STO OF STEW		\$		\$0.08 0.08	£ 4	8.8	6 6.31	8	8.00	80.08	57.63		4
SIA (SAVINGE/INVESTIGIT) AT ESLA, DANDA, STEDA PARDICTION		59 †		9,17		4.7		6. 63		5.41			
TOTAL COST COST PER MOLL TON STOP OF STEPH		96.31		12.27	15. A	K Ž	\$5.31	4	\$6.6	8 6. 48	57.63		6
CHIN COSTS FOR PLLYCHIZEN IF NOT NOT BUT CORE USED AS AST		\$		\$		2		\$		\$			
TORS FEET FOR SOFT SECURITIES		19961		ş,		8 H 2		1995		19861			
Proided Hall disposal cont		\$210,000		\$210,000		\$210,000		\$210,000		6210,000			
518 w/disposal cradit		J.		35 2		6.9		10.50		7.7		1 1 1 1 1 1 1 1 1 1	

Sumery of Sensitivity Analysis		92		5		Ŕ	
PLGET SOLIO				Reh Disposal Cost	1 Cost		
		1	- Company Comp	9 5	Convent tona!	Ž	Convent 1 on a
definition	UNITS		į		į	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3
ENTHRUPY TRONGTERED TO STEEM, ANG HOURLY, 100% AMPLICABILITY	Ē	6.625+07	6. BZE+07	6. 825.407	6.895.07	6. RF40?	K 255.40?
HICH, AME HAY FOR COFFIED CHEE (REMATED AT HI VELOCITY)	Ę	1.425.08	1.385+08	425.00		- C	- A
MAZINGA TURNODAN STEAN NOTING, SEAN BITA	3	3.206+07		3,205+07		3.205-07	
MOLER EFFICIENCY AT MCA	Ğ	0.71	9	0.77	9	0.7	9.0
MOLLER EFFICIENCY AT AMERIC OUTPUT	9	3	9 .0	0.67		38	0.8
MATINGS STEAM DEADING (MCD)	Ž.	1.505+08	1.50£+08	1,506+08	1. 50€+08	1.305+08	2.506+08
TITIES DESTRUMENT DATABLE DA RESPONSE		0	1	•		0	
THE STANDARD DATEMENT AND AND ASSESSED.	E :	9.99€+07	8.515.07	1.025.408	8. 51E+07	1.03€+08	6. 516+07
CONDITION RE INDICEDOR OURSES	¥ .	<u> </u>	3	ភូដ		82 %	,
SOLID RESIDE RENEWIED, CHEMOS	4	5	ì	i i	-	966	101
CHRECH CONTENT OF SOLID RESIDUE, HAY HOURLY AT HOR	ğ	0.47	3 2	8 8	9 6		8 3
PLYNOH FRACTION OF SOLID RESIDUE, AMERICE	ğ	2,3	0.37	. ₩	Ī	, K	3 6
FLYNSH ENISSION ABSOLUTE AND EXISTING CONTROL DEVICE AT MCR	LB/AR		٥	m		7	9
ENISSION OF 159, NOT HOURLY IV EXISTING OTHER AT MON	UB/METU		٥	95	•	9	۰
CHARACTER PLANE BRIENDS, WAS MOREY AT MOS			3.43	30.71	24.5	36.71	3.43
	Š	94619	80778	96603	80778	\$112	80778
LUMBER TO SEE THE PERSON OF TH	ē	21071	138	21467	186.	21603	138
	# F	104864	99099	106809	99090	108403	88080
CONTROL OF THE STATE OF THE STA	ē	17437	19606	17437	30981	17437	30981
ENISSION CHINE DEVICE RESIDED EFFICIENCY (EXISTING DEVICE)	ğ	-	-	-			-
PER ENTERIOR CLIMATE, DEVICE REQUIRED IN YES	ğ	۰	٥	•	•	•	ø
CLELINIC PUREN LUSI FOR FO SYSTEM, PACINGE	Ş	\$1.12	8 0.58	\$1.14	80.9	\$1.16	8. R.
MARK TO COMMEN TUBER FOR TO STSTERY, PACKAGE	#V#	11.63	\$ 0.00	\$1.66	96,00	81.68	90,00
MICH. DELINIT. MICH. LIBITA, MACANINA.	•	3	8 0, 80	± ;	80.08	8.3 8	90.06
CALLED TESTINE SECREPTION, NO. MUNICY AT ACK.		S.	ā	S S	<u> </u>	80	Š
AND DECEMBER 1201, BURDED	£	ī	\$330,048	\$457,072	\$330,048	H57, 072	\$330,046
CONTRACTOR DE CONTRACTOR			2.2	۲ 8	2,2	80 X	82
ME FIFT CHET CHESSES	¥ :	3	4316	2	9779	6230	8. 716
CONT. COLOR		8 1	;	8		87.00	
OPEROTING HESAYR IN CITE OF CITED A COURTY DOWNS		113, 39	\$;	£ .	3	£4.83	112.86
INCREMENTAL MAINTENANCE COST. MAKIN		8	ē	S S	ë	8	2
ANDILABILITY, FRECTION			8	3 5	8	E 1 0	
CHALLAL STEAM PRODUCTION, NET	Ē	4 200C 4	2 8446.41	2/ 30	R	7 7	宋 :
PELATIVE ELECTRIC POLEN CHANGE LYET	2	11.500.01	11,000		3. BPCE+11	11+300	7 MOE+11
MALUR COMPATIDAL PLE COST				2 2	3	14,27	3
MOUNT FOR FIRE CYST			C, (40, /11	1, 404, 303 EC, 708, 71	K, 706, 711	11,449, 192 52, 706, 711	2,706,711
CONTROL OF DESCRIPTION OF STATE OF STAT	¥ .	3	į	440, 653		#41,2 86	
COLUMN TO SECURE COLUMN		900	8	1156, 573	18 2, 723	451 464	\$110,236
FUNDOS CITIE (MOTING CO. 1 COUNCE) 15 - 1	£ ;	91, 344, 000		\$672,000		9672,000	
MEN HOT ENTERTHER BOTT IN MEN PRIMER AND AND	5			•		•	
THE PART EMISSIONS WHILE MY MEN CONTING, DEVICE MICHAEL THE CONTING.		30,71		30.71			
BOSE CODITION COST OF CTORONS CONCUESTS		!					
BOR COUTS (TEXT OF THE SECONDS STATES	• .	\$134,673		27,656		\$136, 480	
PAGE (2011) MET OF GARAT METANICAL LIMITARY	•	2		2		3	
WAS UNTILL WAS UP STATE RELIGIOUS CONTINUE.	•	2		8		\$	

many of Smartivity Analysis		92		19		8	
BET STUNG				Ash Disposal Cost	Cost		
-		ğ	Conventiona?	ğ	Convent tonal	ğ	Convent sons
		Cofifin		Cofifing	Fee	Cofifine	3
finition	STIN	•		•		•	
RE CHATTAL COST OF ROF DELIVERY SYSTEM	•	\$114,463		\$114,463		\$114,483	
RE INCREDENTAL COST OF ASH HOROLING SYSTEM	-	*		\$		3	
AE INCHEDENTAL COPPLIAL COSTS FOR ENISSIONS CONTROL	-	2		8		\$	
RE INCIDENTIAL COST FOR INCILER MODIFICATIONS	-	\$410,09B		€410,093		\$410,093	
RE TOTAL INCHEDIONAL COOTTAL COSTS	-	22.53		660234		661006	
NEDED TOTAL INCREDITIAL CORP.TAL COSTS	-	9470, 212		9671, 509		4672,394	
PITAL NECONERY FACTOR	ĕ	おめ	あ	5	3 5	\$	\$
NAME LITED COST OF CAPITAL	S/YR	\$		2		\$	
ITAL SHOURL DUST COST	\$/ YR	R. 078, 335	R. 078, 335 83, 100, 072	42, 154, 936 83, 127, 647	127,647	55.153.438	R. 251, 429 83, 135, 221
TRE, AMBURE, COST, THICLIBING, COST, OF COPITRE.	5	8	90 83, 100, 072	8	50 83, 127, 647	8	80 83, 155, 221
TRE, CONT. PER MILLION ATO OF STEAM		\$6.88	18.33 35.33	9	M C	8	\$ \$
A 1994 INEL/INVESTIGAT) AT EQUA, GRACAL STEAN PRODUCTION	ĕ	2.18				27.2	
TRE, COM COST PECH MILLION WITH OF STEAM		¥.	£ 33	8	A)	8	8
IN COURTS FOR PALMERIZER IF NOT ROF BUT CORL USED AS ASF	#/ *	2		\$		8	
NG FER YEAR NOF NEGUTIED	Ē	19861		20326		20644	
older Will disposal cost	# /	\$546, 000		£210,000		\$210,000	
R m/disposal credit	ğ	F 1		4		8	

ON 12 T STATE		₹		83		ຄ		25 27 27	
		ğ	Convent : ona!	ğ	Convent tonal	Þ	Convent tonal	ě	Convent 1 on a 1
		Cofifing	3	Cofifing	F	Cofifing	Ĩ.	Cofifing	Fue]
Metantion	UNITS	high Of, high AGE	Ž	actual Of, high MSM	Pidy Von	actual Of,	actual Df, actual MSH	high offersa, peak steam	peak steam
		3	3 (2	, 15 15 15 15 15 15 15 15 15 15 15 15 15 1	7	Tratto . Co./	MC unless	bette Complete and an analysis to the Complete Complete Complete Complete and and the contract of the Complete contract of the	
MARTE SOLD		7. 1		8		2		82	
		ğ	Convent tonal	Þ	Convent tonal	ğ	Convent tonal	ě	Convent Lona?
		Cofifing	Fue!	Cofifing	, j	Cofifing	F.	Cofifing	, F
definition	STIM	high CF, nigh KO	<u> </u>	actual Cf, high Kill	100 15 10	actual Of,	ectual OF, actual MSM	high of desir, peak steam	prek stere
THE PROPERTY OF THE PARTY OF TH	¥U.	6. 81E+07	6. 81E+07	6,815+07	6. BIE+07	6.815+07	6. 81E+07	1.008.408	1.05E+08
CO. AME HOLY FOR COFFIRED DIREC (REPORTED AT HI VELOCITY)	2	1.40€+08	1.386.408	1.406+06	1. 38E-08	1.406+08	1.386+08	1.40€+08	- 386+08
WATHON TURNODAY STEAM BOTTING, SEAR BITH	Ę	¥ 12€ €07		3.125.407		3.125.407		3.125.407	
DILER EFFICIENCY AT NOT	ğ	9. 7¢	8° d	0.76	0. 8	0.76		0.76	9 .0
NOTICE BYFICEDAY OF ANCINE CUTTUS	90	3.0	0.8	3.	9.0	3.0		0.69	9 .0
BELLINE STEAM DEBING (MSD)	Ē	1.505+08	1.50€+08	1.50€+08	1.50€+06	1. SOE+08	1.30£+08	1.50€+08	1.50€+08
	ğ	0		•		0		٥	
THE PIET MAN SOMETHY, WENCE	Ę	1.075+08	8.50€+07	1.07E+08	8. 50E+07	1.075+08	8. 50E+07	1.536+08	1.31E+08
DF FLOATSTE, INCRESS	Ĕ	4		4.45		4.45		. A	
TOMORTORE, RIG. 19847 BITTORY, INCHES	#V97	1604	1608	#071	1608	1/04	1608	5639	12490
TALID RESIDE REPRINTED, MEMBE	5	2488	á	2488	ş	36	ś	3016	1241
CHRON CONTROL OF SOLID RESIDUE, MAY HOURLY AT MICH	¥	0.53	6 3	0.53	0.3	0.S	g.3	\$	6.3
FLYDON FRACTION OF SOLID RESIDUE, PARROCE	¥Q.	2.01	0.37	2.01	0.37	2.01	•	2.01	0.37
PLYNEN ENISSION ABBOLUTE ANG EXISTING CONTROL DEVICE AT MCR	#/ 4 0	m	٥	٣	0	~	0	E	0
DISSIDE OF 159, MAY HOURLY BY EXISTING CHIRL OF NOR	UB/MBTU	9.	٥	0.0	0	90.0	٥	90.0	0
ACCONTINULED PLYNON ENTERSION, NOW HOURLY AT YOU	LBARKTI	¥2.00	3.43	30.24	3.43	30.24		30.24	3.43
COMBLISTICIN ALP WITE, AVEDIGE	#V67	101417	80623	101417	80623	101417		143	124451
COMBLISTION AIR VOLUMETRIC FLOWARE, AVENUEE	ğ	152	37916	resu.	17916	200	17916		200
ET PLIE BOB SPIE, ANEDOGE	#V9	111906	01678	1306	87910	11.906		160483	59/05
ET FLUE 895 VOLUMETRIC FLON, ANERGRE	ğ	17636	30352	3656	30,855	17656	30,855	£2075	2112
ENISSION DATAL DEVICE ASSUED EFFICIBATY (EXISTING DEVICE)	ğ		-	-		-		-	
IEM EMISBION COMPTIL DEVICE REQUINED 1= YES	ğ	•	0	0	•	•		0	•
ELETINIC POWER COST FOR FO SYSTEM, AMERICA	#/ \$	8 1.30	8 8	£.8	\$ 8	8.13		17.19	\$1.47
ELECTRIC POLES COST FOR 10 SYSTEM, PACROSE	\$ /\$	K.18	2 0.8	£.13	80 .00	£.2		13.67	\$ 0,00
11SC ELECTRIC POWER COSTS, PARTIGOE	\$/\$	1	8 0.00	3.03	8 0.08	1,0		\$7.37	\$ 0.00
SOLID RESIDUE GENERATED, MAI HOURLY AT MCR	18/4R	2786	<u> </u>	2786	16.23	2786		2786	3
HANDAL LABOR COST, BURDONED	#V4	8499, 718	\$330,048	8499,718	\$330,048	8499, 718	2	\$499,718	\$330, O48
DECRITORS PER SHIFT	TRINSHIFT		2,2	M.		7.36		Mg rd	2
COMPATIONAL FLEL COST, ANCHONE	₩/\$	8318	£.3	£.	\$316	£.	4316	3 3	\$254
OF FUEL COST, PRESIDE	#V#	39 .00		\$9.00		82.00		913.00	
NEH DISPUSAL COST, AMERICE	#5°	119.91		19.91		19.91		824 . 13	2 8
DECROTING HRS/YR IN COFFIRED STEAM SUPPLY RONGE	÷0.68	<u>8</u>	196,361	\$. 28	19 190	£ 28	136 136	%	3
NCHENERTAL MAINTENENCE COST, AMAJAL	8 /YR	\$4 5,059		#2,039		25.05g		# T	1
MAILABILITY, FMCTION	ĕ	0,72	뜻 당	ያ ያ	9 7	0.72		0.72	8
BOLDEL STEAM PREDICTION, NET	Ē	4.24£+11	5.8E+11	4.2K1	4	. 28. 11.	ď	6. 610E+11	9.000€+11
ELATIVE ELECTRIC POLER PROLA COST	8 /JB	52,745	149	56,745	<u> </u>	37, 20	8 . 48	#1,#2	\$12,578
WHERE COMPOSIONEL FUEL COST	\$/YR	11,997,360	£5, 403, 029	833B, 680	1998,680 42,701,515	899B, 680	1998, 680 K2, 701, 515		18, 340, 35!
WOLD, RDF FLEL COST	#/#R	\$56,016		55 ,016		326 , 016		196 0 9	
MALIAL ASH DISPOSAL COST	#/ YR	± 22, 235	65,043 54,043	± 3,33	\$5,043	12,20	8 60	6 icis	196
Marie Marie Marie Anna									

SADAL LEGASSAS LAGGODAS (VIDANDAS)

Sumany of Sensitivity Analysis		Best Case 6	malysis: 21 to	23; 10% 100.1	thest Case shallysis: 21 to 23; 105 moisture & ash, 60% ratio; 42/7 80f unless otherwise noted	7 ratio; 42/7	RDF unless of	herwise noted	
PLBET SOLNO		₹		ผ		ສ		2	
		ě	Convent : one !	ğ	Conventional	ğ	Convent ional	Þ	Comment tonal
		Cofifing	<u>.</u>	Cofifing	Fee	Cofifing	ã	Cofifing	Fue!
definition	STIM	high CF, high	3	actual Cf, high MSM	150 G.	actual Dr, actual 1694	actual MSH	high offices, pask steam	pack steam
FLABRACE COLD (MONTHS CO & SMOVE) IF = 1	ğ	3		\$		*		2	
NEW YOUR ENISSIONS NATE W/ NEW CONTING, DEVICE	LIB/NORETU	£.8		30.24		30.24		2	
INCLUDED IN COPITAL COST									
INDEE COMPITAL COURT OF STOWNER QUIENSTEN	•	12, 90,		18, 90,		122, 507		14. A	
MARK CORPITAL COST OF LONG MEDIGNALCON, COMPENSE	•	8		\$		8		8	
INNE CHATTAL COST OF SHORT RECHANICAL COMPANY	-	\$		\$		8		8	
SPARE CORPITAL COST OF NOT DELINEAR SYSTEM	•	81.22,146		\$1.2.146		917 ZI4		81 Z. 146	
BANE INCREDENTAL COST OF ASH HANDLING SYSTEM	•	2		3		*		2	
MANE INCREDIENTAL CORTINAL COSTS FOR ENISSTONS CONTROL	-	\$		\$		8		3	
INTELLICIONAL COST FOR IDILER HOUFFCATIONS	•	9407, 616		\$407,516		9407,616		\$407,616	
SAME TUTAL INCIDENTAL CABITIAL COSTS	•	93569		1775 269		69266		500145	
MINISTED TOTAL INCIDENTAL CONTRA COSTS	-	\$914,322		\$914,322		5914 E22		906 IE	
CORTTRE, RECOVERY FACTOR	<u> </u>	あら	\$.6	おが	4.8 4.8	おが	స్త	35	đ đ
MANUALITYD COST OF COPITAL	#/.#	8		\$		8		3	
TOTAL SHALP, OUR COST		12, 773, 103	15, 756, 269	81, 774, 423 83, 094, 734	\$2,480,28	21.77.63 53.09.77	10.10	£1,709,355 \$4,767,24	B. 767.94
TOTAL MALLAL COST DICLIBING COST OF CAPITAL		2	80 55, 735, 269	8	20,40 th 8	8	17, 160 23	2	80 SE 757. P.E.
TOTAL CONT PED MILLION BITO OF STERM		8	£.3	\$6.00	56.31	\$0,08	16.33	8,8	1 2
SIR (SAVINES/INVESTIGAT) AT EQUA, PROUR, STEPH PRODUCTION	Ä	15.5		5.21		2 4		7.45	
TOTAL CHAN COST PER WILLION BITU OF STEAM	S/NETT	3	59.53	£. ;2	£5, 31	* *	15.33	13.53	55.75 57.75
DAN COSTS FOR PLLYENIZER IF NOT ADF BUT CORL USED AS ASF	E ./ 3	3		3		*		8	
TONS PER YEAR NOT REQUIRED	Ē	28008.00		28008, 00		28008. 00		40030	
Area deed Missi of separal cost	Ş	\$546,000		\$546,000		\$210,000		£546, 000	
SIR w/disposal credit	8	21.2		10.91		7.7		7.2	

Summer of Security Phalysis		σ				••		-		•	
Sub Base Bangor, Mashington		Baseline		Steam demand	Ę			RDF Houston	ţ		
		ğ	Convent : one.	ğ	Convent : one.	è	Convention.	Ř	-	ě	Laveni con
aefinition	STIM.	Cofifing Fuel	3	Cofifing Fuel	ğ	En l'algo	 \$	\$	<u>\$</u>	May Maring	•
ENTHALLPY TRONGSTERED TO STEON, ANG HOLARY, 100% AMPLIABILLITY	#7#	1. 81E+07	1.815+07	2.216+07	2.216+07	2. 篇 40 2 篇 40	/0-翼 ~	908	. 00 00	.: 0	BOE +0' : BOE +0?
NCH, ABS NAV FOR COFFIED CHEE (NETATE) AT HI VE.CC TY)	1 26	5.9E+07 6.13E+07	5.136+07	S.986-07 6.186-07	F.1# 407	S. 編 407 6. 1単 6.	6. 1 M eC.	6.11E-07 5.1446.	, 9 Mil 4	S. 816 +07	3. 81E-07 6. : M-07
HOLITHIJA TURNODIJA STEJA BRTING, SEJA BTU-	Ē	1.366+07		1.365-07		. ME 40		374		₩	
BOLLER EFFICIENCY AT MOR	ğ	0.78	0.85	0.78		0.78		ĸ	8	; .;	
BOILER ETFICIBLEY AT ANERGE OUTPUT	5	0.07	9	0.7	9	0.71	2	3	3 'c	3.0	8
MOLITIMAN STEAM DENOMO (MED)	Ē	3.17E-07 3.17E-07	3.17€+07	1.JR-07 1.JR-07	3.378-07	3.1ሺ407 3.1ሺ407	7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1170	1.1740' 1.1740'	1.176.407	3.17E-07.3.17E-07
DEPONTE	ğ	9		9		8		0		9	
TOTAL FLEE INDUT ENTHALMY, AMENDEE	Ē	2.698407 2.138407	2.13€407	3.17E+07 2.60E+07	. 60E+07	3.578-07 2.808-07	2. BOE +07	2.68.07 2.128.407	2.125.07	2. 718-47 2. 13E-47	2. (₹+07
NOF PLOANTE, AVENUE	¥	9		6		:. 07		₹ 0			
COMPORTIONAL FUEL INPUT DIFFIQUAY, AMERICE	ENAIL S	1312	37	ž	2110	3	*127	Ŕ	1,751	ũ	181
SOLID RESIDUE REDERATED, AMERICE	(B/4)	Ř	ij	93	3	Ś	<u>.</u>	3	ч	\$	14
CHARGIN CONTIDUT OF SIQLED RESIGNE, MAX HOURLY AT MCR	8	S	8.0	3	8	*	80	3	8	0. 49	8
FLYNGH FIRECTION OF SOLID RESIDUE, ANEDROEE	ğ	8	0,37	8	Q. 37	8	0. 37	ð	0.37	8	0.37
FLYNDA ENTSSION ABBOLUTE AND EXISTING CONTIOL DEVICE AT MCH	#WET	-	~	-	~	7	~		٦		~
ENISSION OF 159, NOT NOBLY NV EXISTING COMP. AT NCR	LBANNETU	9 8	8.0	9	8.0	9	800	9	3	98	8
UNCONTROLLED FLYKSH EINISSION, WAI HOURLY AT HOR	LBANKETU	10	* 2	K	* 7	K	₹ ~	<u>ئ</u>	4	27	4
CONDUCTION AIR MATE, AMENDE		É	200	300	60	8	200	8	252	18	20.00
COMMITTION ALLA VOLUMETRIC PLOJENTE, PARTICE	5	866	ğ	906	À	T.	ķ	3	à	3	Ą
NET PLUE BIS MITE, SHEDISE	M	28.577	22124	38.7	3 8.331	200	3	E113	21.978		2.5
NET PLUE 1998 VOLUMETRIC PLON, OMERGE	ğ	85 X	2027	200	Ę	3	8	ď	78.	275	Ä
SHISSION ONTHE DEVICE ASSUMED BYTCI DATY (EXISTING DEVICE)	ğ	-	-			-	-		•		!
NEW BITSSION COMPTOL DEVICE REQUIRED 1= YES	ğ		• •	. 0	. 0	. 0	. 0	. 0	5	. 0	ن .
ELECTRIC POLER COST FOR FD SYSTEM, INFERGRE	8/1HP	第 0	86. 38	\$0.45	10.37	4,0	8 0. 33	90.37	9. 9.	3	90.
ELECTRIC POLER COST FOR 10 SYSTEM, CACHOEF	#V\$	# 0#	90.08	80.49	80.08	S. C.	8 0.08	8 0. 33	8 0.00	8	90.00
HIST ELETRIC POLER COSTS, AMERICE	4 /	3.15	90.08	8.3	80.08	9.0	80.08	3	90.08	8.14	8
SOLID RESIDUE EDEDATED, HOX HOURLY AT ACA	#V9	1013	ş	1013	3	1013	3	3	3	K0:	3
ANDR. LABOR COST, BUIDDIED	#V#	8284, 848 4205, 64K	1205, 6 8 6	4284, BMB 4205, 646.	205, 686	4284, BMB 4205, 646	4205, 646	424, 848 4205, 64K	4200, 64K	NEW, PM NECE, W	15.00°
OPERATIONS NEW SWIFT	MONUSAIF7	<u>94</u>	8 7.	.: 8x	房.1	8× -:	票:	-: -:		9 4 :	7
COMPORTIONAL FUEL COST, AMERICAE	#1/s	637.00	90.6	84.30 84.30	68 88	8	8.4	8.8	8	8.7	8
NEW PLEE COUNT, AMEDINE	¥5	8 8		3 8		3 ,		₹		3 ,	
	# / F	\$1.15	9 0.27	2	2 2	K2 =	14 0	1.07	8 .77	: : :	12.00
UNCURNITIES HISCYTT IN CITETIES STEAM SUPPLY HOUSE		Ŝ	6 7	ŝ	£	Š	Ş	ŝ	į	ŝ	1
HOLDERARY, MAINTENANCE COST, AMERICA	5	£25, 46 9		₹ 8		27 27		2,23		122, 781	
AMAILURE ILLITY, FIRECTION	ğ	9	6 3	0.72	8 .	9.75	S	٥. 7	\$	9.73	8 6
MOLESTER MOLETION, ACT	<u>e</u> !	1.16+11 1.66+11		1.46-11 1.98-11			1.35+11 2.16+11	1. 16+11 1	1.65.11	1. 16•11	1.66+11
MELLITY ELECTRIC POREN HOUSE COST	E / 5	6 × 4 18	ð, K	17,877 62,161	ي اغا	119, 167	3	1,572	5 , 57	30.0	5.57
HANDEL COMMONTORIL FILE COST	F./ .	9231,886 9420,916	M-29, 916	12,216	512, 730	20° 78	35 33	8228, 237 8418, 152	# I # I %	821, 863 MIR, 152	M18, 152
	# \	\$10,741		12,63		113,469		K K		12,63	
	E :	6. 18.	R, 343	27,645	3, 18	5. 1.	\$0.0%	8 , 699	S. Si	67.419	3 2 2
HARLIA REA DISPUSAL CUST	£/3	\$	56 2,500	\$	36 2, 500	8	18 2, 300	2	16 2, 500	8	26 500
FUNDATE COLLD (HENCING CO & SHONE) IF # 1	ğ	٥		•		0		•		•	
NEW THEIR ENTERGOODS WITH BY NEW CONTROL DEVICE.		ic.		10		<u></u>		1.2		2.1	
SHALLING IN CAPTURE LIGHT											
BANE CARTINAL CLIST OF STURBER SUBSYSTEM	•	115,577		₹. 8		\$74,046		£.7.5		8	
BARE CAPITAL CLOS UP LUNG REDGATION CONNECTOR	_	3		3		\$		\$		8	
MARE CAPITAL CAST OF SACRET RECHANICAL COMPETOR	•	2		*		8		3		*	
	•	\$65, 906		£2.78		865, 906		\$65,906		86.5.30 20.00	
MARE INCIDENTIAL COST OF REM MARCETAGE SYSTEM	-	8		8		8		2		8	
THE INCIDENTAL COURSE CONTROL CONTROL CONTROL	-	8		8		8		\$		2	
SHOWER THE CONTRACT OF THE SECOND PROPERTY OF	_	2		27.23		224 76		Š		-	

		š		628,745	1	ž		đ Ž		
8375, 185	\$450,245	\$. 6	\$	8578, 137	3	\$0.0g	실	55 30	8,0	6319
		\$ 6 \$ 6		MC28, 745	ME28, 745	Š		Š		
\$365, 259	9483, 066	5 .	\$	1264,827	8	80 , 00	51.5	g Ž	90,08	Š
		š		1764,695	354,630	1. 1.		£3.73		
117, 326,	64.65, 69B	\$.6 \$.6	3	8638, SA3 (\$	\$0.00	÷.	14.27	80.08	213
		\$ 8 8 8		35,425	1724, 452	2		£4.73		
\$377,802	£36,638	3	3	181,181	*	\$0 ,0	-1.7	1.4	80.00	3
		3,		15,153	15.15	3		3.0		
\$370,043	1488. 456	\$	3	1571, 917	8	90.00	5	10.53	90.00	5270
	-	ğ	8/YR	8/VB	£/4	ULBOW/S	ğ	ALL MANUEL STATE OF THE STATE O	8//8	Ē

Recognizational processor accessor accessor processor recognized accessor by

Summary of Sensitivity Analysis		•		.9		1		•	
Sub Base Bangor, Weshington		Excess Alr	7.			Derment Des	ź	•	
		ğ	Conventional	ě	Conventional	Þ	Convent tonal	ğ	Conventional
def1.11 £1.00	STA	Cofifing Fuel	<u>.</u>	Cofifing Fuel	F.	Cofifing	F.	۵	Fue!
	Ŝ								
ENTHALLY TRONGSTERED TO STEAM, ANG HOLIALY, 100% AMBILIDABILITY	#178	1. 80£+07	1.80€+07 1.80€+07	1.80E+07 1.80E+07	1.80€+07	1.80€+07	1.80€+07 1.80€+07	1.805+07	1.805+07 1.805+07
MCH, AME HAY FOR COFFIED COME (MEMOTED AT HI VELOCITY)	Ħ	6. #E+07	6. 44E407 6. 16E407	S. SME+07 6. 09E+07	6.098+07	5 9E to	5. 94E+07 6. 13E+07	M +0.	7. ME+07 6. 13E+07
HERETALLIA TUMBECIAN STEAM NOTING, SECON BITLIN	E E	1.37€+07		1. 256 +07		1.100		10440	1
MOLLER EFFICIENCY AT ACR	Š	0.73	o. 9	0.78	9.0	0.78	0.85	0.7	38.0
BOILER EFFICIENCY AT AMERICE OUTAIT	9	9 8		0.67	8	0.67	9	6.67	
MALINEA STEAM DENGAR (MSD)	T.	3.175.407	3.178-07.3.178-07	3.175.407 3.178.407	3.175.407	3.175-47 3.175-47	3.175.07	3 175-07 2 175-07	3 175+07
	ğ	•		8		0.03		2	
TUTAL FIEL INPUT BITHALPY, PAEDIGE	Ę	2.665-07 2.105-07	2.10€+07	2.69E+07 2.13E+07	2.1.€+07	2.69E+07.2.12F+07	2.125.407	2.705407.2 125407	2 126-07
IOF PLOMBITE, PARTINGE	Ē	3 .0		92	!	5		-	
COMENTIONAL FUEL INDUT ENTHALPY, AVERAGE	EB/HB	8 62	1711	1311	1730	1310	1751	1 2	122
SOLID RESIDUE REPENDED, AMENDER	₩/Đ)	ä		Ř	101	2	19	95	Ķ
CHARGO CONTON OF STLID RESIDLE, HOL HOULY AT HON	ğ	0.52	5 ,0	9	800	0.37	8	×	? 5
FLYNSH FINCTION OF SELID RESIDUE, AMENDEE	ğ	0.1		9	0.41	90	0.17	1 6	4 2
FLYNCH ENISSION MESSLUTE AND EXISTING CONTING, DEVICE AT NCH	#V9	~	~	-	-	-		-	·
EMISSION OF 154, MAX HOURLY AV EXISTING CATAL AT MCR	LB/MBITU	90.0	o. 8	9.	8.0	9	8	. 8	ð
UNCONTRIBLED PLYREN EMISSION, MAY ACCOUNT AT ACR	LB/MBTU	 8	2.11	1.24	2.57	10	7.	7	2
COMMUNITION ALIR HATE, THE DAGE	#V87	23699	18741	27653	30 %	10	20333	909	20.393
COMMETTER ATT VILLINETRIC FLOWINTE, INCHOSE	5	38		9619	+903	Ē	ğ	i.	2
	1	818	20318	30314	53639	\$2.50 \$2.50	21979	200	21979
HET FLUE BASS VALUETRIC FLOW, ANCHORE	ē	233	82	99 77	75.00	*	7136	2703	71.56
EMISSION CHITIC DEVICE RESIDED EFFICIENCY (EXISTING DEVICE)	9 0	-	-		-	-	-	-	-
MEN ENTOSION COMMITTAL DEVICE RECURRED 1= YES	ğ	0	0	•	۰	0	0	0	0
ELECTRIC MARK CLOST FOR FO SYSTEM, AMERICA.	多/元	3 3	10.27	14.08	8	8 0.38	\$0.30	\$0.38	90.30
ELECTRIC PURE LIST FOR 10 STRIEN, MEMBER	8V9	S	80.00	\$6. 38	\$0 .00	\$ 9	\$0.0¢	\$0°	90.0
SOUTH CONTROL TO SOUTH STATE OF THE STATE OF	# (A	3	8	3.5	8 0.00	21. 28.	\$6.00	12.21	60.08
MARIE LANGE THE MEMBERS			3	Ŕ	3	Š	ş	â	3
04590Td85 PF 94151	11/4	6	Ş		200° 004		£205, 686	18. AS	\$205, 686
COMPATIONAL FUEL COST. AMERICA		¥ 8	55.	- 5	S , 1	 	#	94 _:	F. 38
FOF FUEL COURT, PACEMBE		3 8	3	8.5	8 6 6	8 :	8	87.8	8.9
AGN DISPUBAL COST. ANERSES		3 :	8	3 :	;	3 3 8	!	3, 8	
CHERATING HIS/YIT IN COFFIED STEAM SUPPLY RANGE	900	\$	AC40	. 5	10 C C C C C C C C C C C C C C C C C C C) (1 0° 27	3, i	20.57
INCREDENTA, MITMENDICE COST, DANCE,	84/8	3	Ì	2 2 2	È	2 ×	î	Š.	64-98
PARTICIBILITY, FRACTION	ğ	0.7	8	2	8	Ž Š	8	3	8
PANUR, STEDA PRODUCTION, NET	2	1.16-11	1.6€+11	1.16+11	1.65		66.03	ָּטְ	£ 737 .
MELATINE ELECTRIC POLER ANALY, COST	#/#	814,378	5. 18.	4 K	20.78			418 404	
ANUAL COMPORTIONAL FLEX. COST	8//R	6229, 424 \$415, 776	115,776	231,665	\$ 50° ES	(C) (C) (C)	21.4	and the second	201 917
HANCE FOR COST	87.8	\$10,627		10,731		\$12,313	!	9	
	1 /4	1	515,315	86, 993	14. 94 14. 94	13,880	22.23 22.23	\$13.96	82.29
MICH. REI UISIGEL U.B.	8 / 3	3	56 2, 500	\$	982, 500	2	962,500		500
Turnette LULU (MAKING LUL SPILICE) F = 1	9	٥		0		٥			į
THE PART ENTRETHER WHITE MY NEW CONTROL DRVICE	Lavaenu	-: X3		<u>ج</u>		1C		₹.	
MANUAL THE COURT OF THE COURT O									
MAN CAPITAL LAST OF STUMBLE SUBSTITION	•	10 K		87,5K		98 0, 210		966, 313	
HOSE CHAIRS WET OF CASE ACTIONICAL COMMETTER	•	\$		\$		\$		3	
MOSE CREATER CASE OF SPECIFIC PRODUCED LAWRENCE	•	\$		\$		2		3	
BOTH HENDERSTON MAT AS AND LONG IN BATTER	•	36 5 30		86. 80.		\$63,906		\$65.906	
BOR INTERPORT DOTTO MET THE CHIEFTAN	•	2		\$		8		3	
898 DESPET OF THE WAY OF MANY OF	.	2		2		8		\$	
	-	2		2		\$28,750		224 750	

1370, 208	5466, 296 5466, 675	\$56 \$56 \$56 \$56 \$56 300	06 06 UA/S	8/78 \$559, 681 \$626, 827 \$571, 133 \$630, 690	\$/YR 0 626427	8/MMBTU \$0,000 \$4,02 \$0,000 \$4,05	10K 4.22 4.2	6/MBBTU 5.03 4.02 65.04 84.05	\$/YR 0 \$60.00	79v 53t3 53t3
COPITIN, COSTS	BURDDED TOTAL INCREDIENTAL CONTINU. COSTS	CARITYL RECOVERY FIRCTOR	COUTR	190	TOTAL AMBLIA COST INCLUDING COST OF COUTAL	LION BTU OF STEAM	THEDIT) AT EQUAL MANUAL STEAM PAIDA	TOTAL CAN COST REA NILLION BTU OF STEON	ENITER IF NOT ROY BUT CORE USED A	THE PER YEAR REP. REQUIRED

Summary of Come of contract Day office		•		9		:		2		
New Bare Barnor, March Pater		By He		2		200		ي		
			Convent tonal	ě	Conventional	ě	Convent; ona;	ğ	Convent sons?	
		Cofifing	Fuel	Cofifing Fuel	Fuel	Cofifing Fuel	<u>.</u>	Cof11119	Fuel	
	5									
EMMALPY THOMESTERED TO STEDM, AND HOURLY, 100% ANNILABILLTY	BTCH	1.80£+07 1.80£+07	1.80€+07	1. BOE+07 1. BOE+07	1.80E+07	1.80€+07 1.80€+07	1.80€+07	1.806+07	1.805+07	
NECK, NAS HAI FOR COFFIRED CASE LIBERATED AT HI VELOCITY)	H)LH	5.75E+07 6.13E+07	6. 1.E+07	5. BME+07 6. 13E+07	5. 1¥±07	5.9K-07 6.1X-07	6.13E+07	5.98E+07 6.13E+07	6.13E+07	
APPLIANCE TURNOCLAR STEAR ARTING, MERE BILL	Ē	1. 336.407		1.18407		1.365+07		1.365+07		
MOTILER EFFICIENCY AT MICH	ğ	0.77	0. 3	0.78	9 3	0.7	o. 83	0.78	o. 82	
BOILER EFFICIENCY AT AMERGE CLITHUT	ğ	9.0	6	0.67	6 8	0.67	0	0.67	2	
HEALTHEN STEAM DENOME (MSD)	97.W	3.17E407 3.17E407	3.178+07	3.176-07 3.176-07	3.178.407	3.17E+07.3.17E+07	3.17E+07	3.78-07.3.178-07	3.175+07	
SECTION TO THE PROPERTY OF THE	8	8		8		e B		9		
TOTAL FIEL IMPUT ENTHELPY, AMERICE	Ę	2.725407 2.125407	2.12£+07	2.705-07 2.125-07	2.12€+07	2.6K-07 2.12E-07	2.12E+07	2.5/E+07 2.12E+07	2, 12£+07	
ASS PLOMBIE, INCHOSE	Ē	=:		8		9		9		
COMBINITIONAL FIEL IMPLIFICATION, INFERDE	(B/48)	8	1721	1315	1751	 8	121	1305	1751	
SALIO RESIDE ESPERANDI, ARRESEE COMPONIDADES OF SO IN PESSON MAI ASSESSADADES			9 8	3 :	9 8	ia s	9	À.	<u>19</u>	
D WORK FROTTING STATE SECTOR AUTHOR	Š	• E	\$ F	3 8	5 F	9 E	\$ F	¥ 8	\$ 6	
FLY69 ENISSION ABSULTE AS EXISTING CONTROL DEVICE AT NO	1	ş -	; ~	s -	š ~	3 -	ì r	s -	è.	
ENISSION OF 196. AND HOURS W. CHISTING ONTRY OF ACT	T WAR	. 6	' 8	- 2	° 2	- 5	' t	- 5	1 2	
LINCONTROLLED PLYAGE ENGISSION, NOT HOUSE VOT NO	(B/48)		, # ; ^		, ,	\$ K	, 4	, -	\$ # 6 *	
COMMISTION ATR MATE, PARENCE	808	2	200	200	ğ		, E	: K	i e	
CORNECTION ATA VOLVETIBLE PLOMBITE, METAGE	6	\$	4	Ē		Ē		3	237	
NET FLUE BAS MITE. ANGINEE	B/8	3	25.	2	200	2	Ē	8	, E	
NET PLUE BAS VALUETHIE PLOY, PACHOSE	ē	2	71.56	×	7	ž	, .	ž	, .	
ENISSION OFFIL DEVICE ASSURED EFFICIBILY (EXISTING DEVICE)	ğ	-	-	-	-] -	-] -	3 -	
NEW BATSSTON COMPTOL DEVICE REQUIRED 1= YES	Š	•	•						. 0	
ELECTRIC POWER COST FOR FD SYSTEM, AMERICE	\$/X	25. Si	6. d	50°	96.08	96. 38	60.30	\$0°	\$6.30	
ELECTRIC POLES COST FOR 10 SYSTEM, PARENCE	#/s	ğ	80 .08	5 0.00	90.08	\$	90.08	- OS	90.00	
MISC FLECTRIC POWER COSTS, PARTHOSE	\$/H	\$6.07	8 0.08	51.83	80.08	3.5	90.00	29.16	90.00	
SOLID RESIDUE GENERATED, HOX HOURLY AT MICH	18/48	8	3	<u>\$</u>	3	1013	3	1013	ş	
PANILY LABOR COST, BURDONED	\$/78	5284, BMB	9200, 686	5284, 948	8205, 686		\$205, 686		4205, 686	
CHERNATORS FIER SHIPT	FENCYSHIFT	- 8X			8	.: 8X	1.38	 84	8 7.2	
COMBITIONAL FILE, COST, AMERICA	\$/H	137.00	848.00	137.00	848.00	137.00	546. 00	937.00	546. 00	
THE COST, DARROSS	#\/ *	3, 8		9		8		\$17.00		
AND DISPLEMENT CLEAR, PACKAGE	¥.	3. 2.	10,27	41. 16	\$0. 27	9 1.1	10.27	1	\$0.27	
CHESTRATING HESTYR IN CITE INC.D STEAM SLIPPLY ROBER	2	8	3	8	96 49	Ş	86 49	8	66 49	
CARLO	#/#	16.3		E .		74.7		2		
CAMES STEEL CONTROLL OF	ž ā	2 .0	S :	0.72	6 .	0.70	\$	2 .	8	
RELATIVE ELECTRIC POWER INNER, COST	5	17.706	4	1. Je 1.		24 41	1	1. 15.11	. K. 1	
ANNAL COMPOSITIONAL FLEL COST	#/.	163W. 691	MIA.132	20.00	#14.15P	20.620 skill. 15	21.51	20 50 41A 15		
ANNUAL ROF FLEL COST	E	113,977		\$12,110		80	!	\$110.027	!	
PRELIAL ASH DISPUSAL COST	E	67,690	S.	97, 306	\$, 32,	1,00	£, 228	100,78	100 N	
SOUTH HERE DISPOSAL COST	\$/YB	\$	\$62,500	2	882, 500	8	962,500	8	162,500	
FURNITY COLD (MOTING CO & SMOKE) IF = 1	ğ	٥		0		0		•		
SCHOOL BUILDING THE VIEW CONTING. BEVICE	UBMOUT	2.		ž.		1 3		10		
Declarate in Capital Cast										
MAN CANTIN LIGHT OF STURING SUBSTITUTE	•	883,745		879, 150		\$73,410		675, 410		
SANE CASTING COST OF SANET METABATION COMMENTAL		2 :		8:		\$:		3		
	٠.	2 3		2 3		2		3		
		3		§ \$		9		8		
BARE INCIDENTAL CAPITAL CUSTS FOR ENTSSIDIS CONTROL		3		2 \$		3 5		2 1		
BARE INCIDENTAL COST FOR BOILER HOBIFICATIONS		25. 75.		200		2 2				
	•					3		MCGB, /BD		

BARE TOTAL INCREMENTAL CARITRAL COSTS	•	\$378,410		\$373.855		\$370.075		270 075		
BUNDERED TOTAL INCREDENTAL COPPITAL COSTS	•	\$499,502		1493,489		1480.499		66		
CADITAL RECOVERY FACTOR	ğ	\$ 6	ð, oʻ	3	J.	*	3	3	3	
REMUNEL 17(3) COST OF CORPUTAL	\$/YR	2	2	\$	•	9	•	S		
TOTAL PRALICE DUR COST	8/YR	\$581,889	9628, 745	557.453	M28, 745	\$ 779.659	24.745	CA PAN	745	
TOTAL MANUAL COST INCLUDING COST OF CAPITAL	S/YR	2	628.745	9	16-28, 745	9	24.745	8	37, 807	
TOTAL COAT PEA NILLION BTU OF STEAM		\$0.00	3	90	3	9	2	\$	2	
SIR (SAVINGS/INVESTIGNT) AT EQUAL INNULA, STEAM PRODUCTION	ğ	1 2		7.2	•	4		1	Ş	
OTAL CHAICEST REA MILLION BITLOF STEAM	\$/ PB TU	2	3	8	3	W 75	3		3	
NAM COSTS FOR PLAYERIZER IF NOT ROF BUT COR. USED AS ASF	BY\8	80.00	80.00	8.8		90.00		9	ţ	
DIG RET YEAR NOF REQUIRED	Ē	9969		2009		5341		ž	188	

		:		-		•		;	
Sub Base Benedt, Machinaton		Cofure Retto	919	•		Convento	Conventional Fuel Cost	9	
		9	Convent tonal	ğ	Convent tonal	ě	Convent tonal	Ð,	Convent tonal
definition	UNITS	Cofifing Fiel	9	Cofifing Fwel	Ĩ	Cofifing fuel	, ,	Cofifing	.
ENTINGLEY TROOFERED TO STEWN, AND HOLDLY, 100% ANGLIGHTLY	Ě	1.625.407 1.625.407	1.625+07	1.805+07 1.805+07	1.80€+07	1.805+07 1.805+07	1.80€+07	1.805+07	1.80€+07
HERE, AND HAVE FOR COFIED CHEE (REMITED AT HI VELOCITY)	HTM.	6.28E+07 6.13E+07	5. 1.XE+07	3.69E-07 6.1E-07	6. 1E+07	3.9E+07 6.1E+07	6-13E-07	1.98E+07	6.136+07
MARINGA TURBETON STEEM BATING, SEAR BITLA	Ę	1.416+07		1.315+07		1.365+07		1. JAE+07	
MOLLEN EFFICIENCY AT HEA	¥	0.81	0	0.76	9. 83	0.78	0. 82	0.78	0. 22
BOILEN EFFICIENCY AT AMENDE OUTPUT	90	47.0	6. 18	0.61	9	0.67	8	0.67	9
HOLLINGS STEAM REDICTOR (MESS)	Ē	3.1/E+07 3.1/E+07	J. 17E+07	3.1Æ407.3.1Æ407	3.176+07	11E47 31E47	3.175-07	3.17.407	3.17E+07
WINE CO. 1487 Course a primary	¥ i	0	,	0.07	9	9 8 8	•	8.6	
BAC DOMEST ACRES	5 5	C+45 0/ C-125 U/	À MI	C. 3/E-0/ C. 10E-0/	r. 100 v/	Control Cident	i i i	6. b/e+0/	ć. 10.40/
Chapting 65 upt from 94 person	9	5.5	Ę	ě	į	2 5	į	2 5	167.1
SOLID RESIDE RECENTLY, ACTORE		Ā	3 3	2 12	9	À	9	Ā	19
CHANCE CONTROL OF SOLID RESIDIE, HAS HOURLY AT HICK	2	0.46	5	8	8	8	80	S	3
PLYNON FRACTION OF SOLID ACKING, AMERICA	ă	9.12	Q.37	98	0.37	8	0.37	8	0.37
PLYNCH ENERGINE AND EXISTING CONTIN. DEVICE AT MICH		~	m	-	~	-	m	-	~
ENISSION OF 159, MAI HOURLY MY EXISTING COURL AT MCR	Laveetu	9	8.0	9	8	9. 8	8 6	9.	5 .0
LICONTIDLED FLYSH DRISSION, HE HOLE Y AT HOS		£2.	۲. ۲.	1.21	ぎる	<u></u>	ار ا	<u></u>	Æ.
COMMENTION AIR MATE, AVENUE	ş	SPSS	2026.1	2000	20.39.3	572	20,333	673	20333
COOLSTION AIR VOLUETRIC FLOARITE, INCOREE	5	2	4369	3	ğ	572	ğ	572	ą
NET PLIE BYO MITE, ANCHORE	- T-	8	22.60	31390	21979	282	21979	<u> </u>	21979
NET PLUE GRIB VALUMETRIC PLON, AMERICAE	ē	2467	6397	2819	7156	2	7156	8	7156
BUISSION CATAL DEVICE ASSUACE EFFICIENCY (EXISTING DEVICE)	Ä	-	-	-		-	-	-	-
NEW ENISSION CONTINUES REVICE REQUIRED 1= NES	¥	0	0	•	•	•	•	•	•
ELECTRIC POLER COST FOR FO SYSTEM, PACINGE	9	ž Š	90°	3	8	위 호	06. 30	80 , 38	\$6.30
RECTRIC POWER COST FOR 10 SYSTEM, INCHES	# ·	S S	8 8	Š.	80 ,08	¥.0	8	₹ 3	\$ 0.08
MISC ELECTRIC PORER CUSTS, CACHER	#V8	Š	80.08	3	8 8	3.5	90.00	3.5	90.08
SOLID RESIDEE EDIENTED, HOL HOURLY AT HER	3	619	3	150	ş	1013	\$	1013	3
PARLIAL LABOR COST, BURDOED	8/A8	4244, 360 4205, 686	K205, 686	1311, 425 1205, 686	1500, 646	\$284,848 S205,686	K205, 686	\$284, BMB	\$205,686
	MIN/SHIFT	3.	8	2.	1.38	-: 8X		-: 84	9 7:
COMPITIONAL FLEL COST, AVENDAE	¥.	34 58	£49.00	627.00	\$18 .00	8 8	\$73.00	677.00	197.00
NOTE FIRST COST, AMENINEE	#V\$	\$1.80		3		3 8		8	
HEN PLENDER COST, PACHOE	¥ /	50,73	20.27	11.57	80.27	31 . 11	80.27	8 1. 13	10.27
CAPTRICAL HIS/YA IN COFINED STEAM SUPPLY NOVE		30	95	8	673	8	6 7 3	Š	8649
INCHEMENTAL MAINTENANCE COST, SIMBLE	*	8		84,120		<u>2</u>		2	
MALLELLIT, PACTION	ğ	2° °	S C :	9. 72	\$	Q. 72	8 . :	0.72	8
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Date of the property over		g :	Ş	1/1/1	\$	10,68		200	
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BARE CAPITAL COST OF SCORT RECARDIDAL COMPTOR		8		2 9		2 \$		8 8	
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MARE INCREDENTAL CHATTAL COSTS FOR ENTSSIDES CONTROL		8		2		2 2		2 2	
BARE INCREDIENTAL COST FOR BOILER MORE TONITONS	-	150		152 150 150		05/ \$25 VEO		\$228,760	

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BANE 10TA, INCREMENTAL CAPITAL COSTS	-	6.135, 202		4.397, 238				\$370,075	
SUMBLED TOTAL INCREDIGIA, CONTIAL COSTS	-	1442,466		524,355				5466, 499	
CADITAL RECOVERY FACTOR	ğ	35 6 35 6 35 6	\$ o	\$.6 \$.6	\$	3.0	3	\$ 6	\$ o
344JAL 17ED 0367 OF 33017AL	8/ VR	₽		\$				\$	
TOTAL ROBLING, DAM COST	#V#	125, 231	617,001	554,73	3¥. ¥3	96.85, 797 94.37, 821	123,72	1001,100	1,046,897
TOTAL PARALAL COST INCLUDING COST OF CAPITAL	8/48	8	617,001	8	28,78	8	129,728	3	1,046,897
TOTAL COST ACH ALLLION BTU OF STEAM	\$/##T	8	10.1	80.00	3	90.00	見ば	80.00	2.4
SIR (SAVINGE/INVESTIGAT) AT EDUAL GROUN, STEAN PRODUCTION	ğ	4.2		-1.77		-1.49		. 78 5. 78	
TOTAL DAM COST REP MILLION ATU OF STEAM	S/MODITU	15. 03 14. 07	1. 07	2.3	8 1	8 .8	\$6.05 \$5.38	\$7.07 \$6.72	56.72
OUR COSTS FOR PLEVERIZEN IF NOT NOW BUT CORE USED HS NOW	8/A	\$ 0.0		8.0		\$0.00		\$0.0	
TOPS PER YEAR NOT REDUINED	Ē	27		200		ā		ā	

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ENTHALPY THOMSELMED TO STEAM, AND HOURLY, TOOK SHATILLING		1.806+07 1.806+07	(Q-4)	1. BOE +07 1. BOE +07	. BOE +07	1.806+07 1.806+07	. BOE +07	1.805-07 1.805-07	1.806+07	
HEAVY WEND THAT FOR LEAVING CHARLES AND HE VELLETTY. INDIVIDUAL TRANSPORTANT STREET BATTLES, SECOND STREET.	1	2.XE-0/ 5.1E-0/	/Q-4	2.XE+07.5-1,8-67.	/Q-#1	1.00 to 100 to 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3.38E-67 6.13E-67	F 15 +07	
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BOLLER EFFICIBLEY AT AMERIC OUTAIT	5	0.67	19	0.67	2 9 2	79.0	2 2	9	2 12	
HOLLINGS STEAM DEDUCED (NEST)	8T.	3.17E+07 3.17E+07	175+07	3.17E+07 3.17E+07	L17E+07	3.12.07 3.12.07	L 17E+07	3.1R407 3.1R407	3.175+07	
DESIGNY	90	0.08		98		9		9		
TUTAL PLEL INSUIT EITHELPY, AMENDEE	#18	2.67E+07 2.12E+07	125.407	2.67E+07 2.12E+07	70-3217	2.705-407 2.125-407	. 125+07	2.75.407 2.125.407	2, 125.407	
ADF PLOMATE, AVENORE	Ē	0.68		88		98		0.67		
COMPORTIONAL FUEL INDUT ENTHALDY, IMPROSE	LB/AR	500	12/1	8	121	1319	1721	330	1721	
SOLID RESIDUE GENERATED, INVENIOR	B/Hg	â	ĸ	Ŕ	9	'n	ĸ	8	ŭ	
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NET PLUE BISS VOLUMETRIC PLUN, AMERICE	ğ	28	25.	8	7156	2	7156	ž	5	
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NEW DRISSION CONFIDE DEVICE REQUIRED 12 YES	ğ	٥	•	0	•	0	•	. 0	. 0	
ELECTRIC POWER COST FOR FO SYSTEM, PARENCES	#//#	8	\$0.30	8 7.0	80°30	80.38	96 198	86.38	3,	
ELECTRIC POLICY COST FOR 10 SYSTEM, PACHORE	\$/H	£0.34	80 .00	7. 08	90,08	₹.0¥	96 98	3 .	80.00	
MISC ELECTRIC POMER COSTS, PARRAGE	#/# #	\$1.65	8	3.15	8 0.08	\$1. 66	8 0.00	\$1.67	\$ 0.00	
SOLID RESIDIE GENERATED, MAY HOURLY AT MEN	B/B)	1013	ş		ż	1013	3	1013	3	
HANDR LYBOR COST, BURDOED	8/VB	7.584, 648 S.	£205, 686	858,848	\$ 202, 686	\$284,848	\$205,686	\$2.00 Mg	£205, 686	
CHERETORS HER SHIFT	(J. 76.)	8 4 .:	99 ;	8X .:	9 7.:	.: 8x	8 .:	æ ∹	 82	
COMPATIONAL FIEL CIST, AFRONE	#/ *	3.5	24	27.00	8 71	\$37.00	248 88	£37.80	8	
AND PUBLICIES, PARTIES.	# V .	8 : 2 :	:	8 3	!	3 ;	,	3		
NATIONAL CLIEFT, ANGELE.	# /s	# :	50.23	1	6	£1.73	9		\$ \$	
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PELATIVE ELECTRIC SOMEN SAMEN COST	\$/YR			3	2	3	2	66.	30	
RANTAL COMPORTIONAL FUEL (DST)	84.74	2	2	82 X. S.O.	21.41	1233, 094, \$4:8, 152	201.61	21.81 # 21.729	S 1.81 H	
SHALLE ROF FUEL COST	8. YR	\$10.00 \$1		\$10. 662	-	\$10, 797		\$10,090	!	
344.54 (4-11908) JEST 35.	BA/\$	3	κ. 38	\$ 0. F	£2, 228	\$19, 87.	13,48	\$14,90	1,656	
HAMINE HIGH DISPOSAL COST	e; ₹0	3	50 S. S. S. M.	\$ \$	\$0. \$163,000	¥	162,500	*	582,50C	
COMMISS COLD LANGUAGE TO A SACRED ST = 5	ğ	23		'n)		3		
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BANE INDICATION LIST FOR BUILDS WINES (DATIONS		F. 8. 3		39: 1523		€83		4.26.75		

RECORD RESESSORS RESIDENCE FOR STATE

Book 11100 Jurishiphilib (2017).	•	\$370.075		A70 075		4170 790		V57 ULL		
THE PROPERTY COUNTY COUNTY	•					200		20.00		
BUNDONED TOTAL INCHENDATAL CORTIAL COSTS	-	\$468, 499		\$488, 499		F488, 915		£489,258		
CODITION RECOVERY FACTOR	ğ	\$	\$	3.00	3 .6	\$ 6	3.00	8	3.00	
CAMERAL 17ED COST OF COPITOR	4 /4	3		\$		3		3		
TC FR. MANUEL CUM COST	S/VR	\$570, 467	\$570, 467 \$428, 745	8570, 487 8628, 745	MAZB, 745	\$577, 104 \$629, 909	628, 809	\$583, 425 \$631,073	\$631,073	
TOTAL MARCAL COST INCLUDING COST OF COURTAL	\$/YR	\$	96.28, 745	3	K28, 745	8	626,659	2	\$631,073	
TOTAL COAT PER MILLION BTO OF STEAM	\$/##BT	\$0.08	5	90.00	3.	80.08	3	80.08	3	
SIR (SHVINGE/IMESTREAT) AT EQUAL HAGAL STEON PACKLETION	9	2.2		4.2		λ, S		بار ج		
TOTAL CAN COST PER MILLION BTU OF STEAM	\$/IBBIT	4	3	40.48	3 3	\$5.09	\$ · 0	\$5, 15	3	
CHAN COSTS FOR PALMERIZER IF NOT NOW BUT CORL LISED AS ASF	8/YR	9 0.08		90.00		\$0.00		8.0		
TONG PER YEAR REP REQUIRED	Ĕ	3		33		967		*		

Expair Property View

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Submary of Sentituity Analysis Sub Base Banner, Marbineton		Cit Silk at Checkit	į	AS 11 8 Credit	11000	23: 51# m/ credit	/ credit	
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		Cofifing Fuel	Fee.	Cofifire	<u>.</u>	Cofifing		
definition	-							
DEPARTY TROUBLES TO STEEK, AND HOLKLY, 100K SHALLABILITY	Ē	1.80€+07 1.80€+07	1. BOE+07	1.805+07 1.805+07	1.80E+07	1.805+07 1.805+07	1. BDE+07	
NCS, AND NIN FOR COFINED CHE (NEDRIED AT HI VELOCITY)	Ę	5.9E-07 6.1E-07	5.1X+07	5.9E+07 6.1E+07	. IX+07	5.9E+07 & 13E+07	£.13E+07	
HORITHAN TURBITAL STEIN MITTIG, SEAN DITH	Ē	1. 第107		1.36.407		1.36.407		
	ğ	2 0	2	0.78	9	0. 7E		
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	ĕ	ප ප		9		9		
TOTAL FLEE, LIMIT GATHALPY, MEDINE	Ē	2.67E-07 2.12E-07	2. IRF 40.7	2.67E+07 2.12E+07	1000	2.6/E+07 2.12E+07	2. 12£+07	
INF PLOMETE, MEDICE	Ē	2		12		9		
CONSTITUEL FIEL DING BINALPY, AVENUE	EV.		12. 12.	200	12.	8	1721	
SOLD REIDE GERNIED, MENNE	5	Ŕ	9	À	9	R	9	
CHECO CONTROL OF SELLO RESIDUE, MIC MODELY AT ACT	5 }	3 K	8 6	9 9	5 i	9 S	8 F	
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BLETHE FORD COST FOR 10 SYSTEM, ANGELOR	5	3 :	8 :	式 : g :	8 : 8 :	# ! # :	8 :	
MENT BLETTLE FORD CHEM, MENTE	5	3.5	8	3.	8	3	-	
SOLD RECORD BETTER, WE HORLY AT NO.	<u> </u>	1013	3	101	9		7	
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OPERATORS FET SHIFT	2	94 : !	7	2 4	# :	94 :	郑	
COMPONIDM. FIEL COST, M-CHOK	Ş	87.8	8	8.6	## 8	8.73	8 7	
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CONTINUE MEN'TH IN CONTENT STREET STATE AND STREET STATE STREET STATE STREET ST					ŝ	8		
JACKSTEATTH, MAINTENANCE LIBIT, MANUAL	E !			7		7	;	
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MACHINE ELECTRIC PART HERAL LIBI	E (2		K 34		2,5/6	
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MAN COURTS COME OF STREETS SANSTONE	•	67.410		675. A10		674 A10		
INTE CONTRA CUET OF LOSS REDARNON, COMEYOR	•	8		8		8		
BASE COUTTAL COST OF SOURT NECHBRICAL COMPTOR	•	2		8		8		
DATE CAPITY, CAST OF REF RELINEAR SYSTEM	-	200		200		300		
ME DOBBITE OUT OF AN INNELLATIVITIES	•	8		8		8		
INTERPORTAL CIPITAL COSTS FOR BUSHIOS CONTO.	•	2		8		2		
INNE INCIDENTAL COST FOR BOXER HOBIFICATION	•	8228, 760		1 2		2		

BORE TOTAL INCIDENTAL CHOITAL COSTS	• .	5370,075		6370,075	
BURDED TOTAL DESIDENTAL COPITAL COSTS	. š		j		3
CONTROL RECOVERY FROTICE		3	5	3	
HANDELIND CIDE OF CAPITIC	E / A	1570,467	MC28, 745	570,467	8570, 487 MESE, 745
TOTAL PRESENT CHEST THE PART OF CROSTS	5	3	35, 25,	\$	£24,75
THE PARTY LAW MALEN CO. T. C.	\$	8.8	3	8	\$ \$
1974, COM PER POLITICAL DE SESSE STEON PRODUCTION	ğ	4.21	22.2	2	
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definition														
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CHINEST INVESTIGATION OF THE CHINES OF WE WENTLY!	STURE SME+07	9E+07 6. 1.E+07	Z ## +0	6.1%·07	S. BEE+07	6.1E+07	5. BEE +07	F. 13E+07	5. BBE +07	6.146+07	5. BEE+07	£ 13E+07	\$ BE 407	6.13E+07
Marine Separat STREET MINE SOME TITLE	BTUH, 365-07		1.1000		1. 356+07		1. XE+07		1, 336+07		1.336+07		1. 3度407	
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en se crecinery of motion and a	9	8	Q.67	9	0.67	0.0	3	9	3	8	9	0	3	9
CONTINUE STEAM DESCRIPTION (MED)	BTARS, 17E+07	3.17E+07	1.176407	1.176+07	3.176+07	3.176.407	3.176407	3.176+07	3.176407	3.176+07		3.116407		3.176+67
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TOTAL PURE THEIR BOTHER P. MEDINE	. 67E+07	2.126407	3.385+07	2.805+07	1.3E+07	2. BOE+07	2.955+07	2.12E+07	2. SEE 107	2. 12E+07	2. WE+07	2.125.407	2 38 407	2.126+07
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PAYER BOXES MEDIE AS STREETS CONTR. SEVICE AT NO.	5	~	-	m	-	~	-	~	-	~	-	~	-	~
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ICH BUSKION COMPO. REVIEW REBUINED 1- YES	2	•	۰	•	•	•	•	•	•	•	•	•		•
BLETTRIC FOLER COST FOR FO SYSTEM, ANEMAE	\$/HE \$0,38	8	8	80 .39	8	8	4	A d	₽.4	A S	8	8 9		8
SASTINC PAREN COST FOR 13 SYSTEM, PACINGE	\$C.08 BEV.8	8	80 , 61	\$0 .08	30.6	8,8	80,37	90.00	80.37	8 .8	80.37	8 8	10,37	8
HINCE ELECTRIC POLES CHESS, PACINIES	\$7.E	\$	3,	\$0 ,00	8,8	8 4	<u>ئ</u>	#6. 60	Z,	\$	3	\$		8
ILED IEBUNE IBENTES, NE ADR.Y AT ICA	LEAN 1013	Ş	571	ş	2	5	ij	\$	2	9	£	7		3
HENDY, LANDR COM, BLANDED	SATERON, MA	RECT, EM	SH, 455	\$200°, 646	S1,43	2500° EB	<u>5</u>	800°, 686	<u> </u>		2	#505, EM		202, ES
CONTROL FOR SALTT	95.1 26.1	#	ฉ	R	ฉั	7 .	2	A	-2	7.	2.1	男		R .
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